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1994 MONTANA HEALTH RESOURCE MANAGEMENT PLAN

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Prepared for:

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EXECUTIVE SUMMARY

The 1994 Health Resource Management Plan (HRMP) is an integral part of Montana's health care reform efforts. It serves two distinct purposes which will assist the state in meeting its goal of assuring all Montanans "access to quality health services at costs that are reasonable." First, the 1994 HRMP is the most comprehensive inventory and assessment of Montana's health care resources compiled in a single volume. Created in accordance with Senate Bill 285 (S.B. 285), the 1994 HRMP details health care resources ranging from primary care and emergency medical services to health science libraries and naturopaths.

Second, the 1994 HRMP provides a forum for presenting the information assembled in the Regional Health Care Management Plans in a statewide context that can support the state's health planning efforts. S.B. 285 stipulates that the statewide HRMP consider the work of the regional plans and as a result, much of the data in the 1994 HRMP has been drawn directly from data gathered by the regions. S.B. 285 further stipulates that both statewide and regional HRMPs be updated annually. This assures that the process whereby the work of the regions informs the statewide HRMP and places the data in a context useful for statewide planning will continue in future years.

A. THE STRUCTURE OF THE 1994 HRMP

Each chapter in the 1994 HRMP focusses on a different category of health resources and contains the following types of information:

- **Background.** The background provides a brief overview of a particular health resource and its role in the health system.
- **Inventory.** The inventory presents data available to assess the supply of the resource. When a resource is comprised of varying providers and/or types of services, these components are identified and discussed. In general, both state and regional data on the resource will be presented. Where appropriate, data is presented at the county level.

- *Discussion.* The discussion offers measures of the adequacy of individual health resources and services. When available, Montana specific standards -- such as State Health Plan formulas for nursing home bed need and home health services -- are presented. In other cases, federal measures of resource availability such as Medically Underserved Areas (MUAs) and Health Professional Shortage Areas (HPSAs) are discussed. Finally, when no state or federal standards exist, alternative measures such as waiting lists for a service, are used. The measures used in the HRMP to assess adequacy of supply are not conclusive. The assessments are offered to help place the inventory of a resource in its state and regional context. As has been noted, the development of standards that balance cost-effectiveness and accessibility will be a major task of future HRMP's.
- *Recommendations.* This section identifies possible recommendations to address health resource needs in Montana. The proposed recommendations are based upon an assessment of the resources, discussions with state officials, and state reports such as federal block grant applications or yearly plans.

B. SELECTED FINDINGS

Highlighted below are a few of the more interesting findings detailed in the 1994 HRMP:

1. Long-Term Care

There is a correlation in Montana between the availability of alternatives to nursing home care and the use of nursing home beds. Region I, which has the highest number of nursing home beds per 1,000 persons over 65 (79.9) , also has the fewest personal care beds per 1,000 elderly persons (2.1) and the fewest people receiving home health care per 1,000 elderly persons (54). Conversely, Region V has the fewest nursing home beds per 1,000 elderly persons (61.9) and the second highest number of people receiving home health care services per 1,000 elderly persons (100).

2. Perinatal Care

While Montana's 1992 infant mortality rate compared favorably to the national rate, (7.4 vs. 8.5 per 1,000), there is still cause for concern. The infant mortality rate among the Indian population (16 per 1,000) was roughly double that of the rest of the state in 1992.

Furthermore, only 41.5 percent of Very Low Birthweight Babies are born in hospitals with a Neonatal Intensive Care Unit, compared to the state's goal of 90% by the year 2000.

3. Growth of Midlevel Practitioners

The need to promote the appropriate use of nurse practitioners and physician assistants has been repeatedly stressed by the MHCA during its deliberations. The data presented in the HRMP indicates nurse practitioners and physician assistants have become increasingly vital providers of health care in Montana. There are currently 136 nurse practitioners in Montana, double the number that were in the state in 1985. The growth in physician assistants has been even more dramatic. The present total of 73 physician assistants is a six fold increase over 1985.

4. Major Medical Technology

Montana's sparse population and the generally small size of its hospitals has not prevented the state from amassing a significant amount of major medical technology. Twenty five hospitals in Montana currently have CT scanners, including facilities with as few as 26 beds. In addition Montana has 8 hospital based MRIs (not including freestanding MRIs or shared equipment), a rate of roughly 10 per million people. The U.S. average in 1987, was less than 4 per million. Likewise, Montana has 4 lithotripters (again not including shared equipment) for a rate of 5 per million people. The U.S. average in 1987 was less than one per million.

C. ISSUES FOR FUTURE HRMPs

The inapplicability of much of the available health resource data for comprehensive planning purposes and the lack of generally accepted standards to assess the adequacy health care resources were two major obstacles identified during the development of the statewide and regional HRMPs.

1. Data Limitations

While the 1994 HRMP drew its information from the most accurate data sources available, they are often not adequate to accurately evaluate the availability of health resources. For example, professional licensing data is used frequently in the 1994 HRMP and, while it is excellent for identifying those health care providers qualified to practice in their field, it does not provide information about whether an individual is actually practicing, what setting he/she is practicing in, or how much service he/she is providing. Knowledge of the data limitations identified during the 1994 HRMP's creation will be valuable in the development of the resource section of the unified health care data base as required by S.B. 285. The implementation of the unified health care data base will assure that future HRMPs will have a more accurate and appropriate source from which to draw its data.

2. Resource Standards

A definitive determination of the adequacy or inadequacy of many of the health resources discussed in the HRMP is not possible due to the lack of generally accepted standards for appropriate resource allocation in a state like Montana. Its large size and low population density make providing access to cost-effective health care services difficult. A major task of future HRMPs will be to develop standards for resource allocation which effectively balance the competing goals of accessibility and cost-effectiveness. In addition, the standards should also take into consideration the overlap of various services such as nursing home care, personal care, and home health care.

D. FUTURE OF THE HRMP

In the future the HRMP will continue to serve as an inventory of health resources and a tool for statewide health planning. Presumably, the consolidation of the unified health care data base and the annual development of the HRMP will provide the necessary transition for the Authority to absorb the statutory obligation of comprehensive health planning. According to S.B. 285, the transfer of comprehensive health planning from the Department of Health and Environmental Sciences is scheduled to occur July 1, 1996. The annual

updates of the statewide HRMP can serve as the forum in which an integrated health care system is defined and the progress toward achieving such a system is tracked. The HRMP can also serve as the source which serves as the basis for possible modifications to the existing health planning regions.

1. Integration

In upcoming years, through comprehensive health planning responsibilities of the Authority, the annual update of the statewide HRMP can serve as the forum in which an integrated health care system is defined and the progress toward achieving the goal of establishing such a system is tracked. Questions that will be addressed through this process include: How should tertiary hospitals be linked with less specialized facilities? How should primary care services be integrated with local hospital services? How should medical and social support services within regions be integrated? These are all questions that the MHCA will confront as it tackles its ongoing task of defining and promoting an integrated health system in Montana.

2. Regional Configuration

The statewide HRMP can also serve as the source which serves as the basis for any changes and enhancements in the existing health planning regions. To be effective planning mechanisms, the health planning regions must ultimately be configured to reflect actual patterns of health resource use and needs. The statewide HRMP, which synthesizes information from the five health planning regions, can serve as the basis for determining the appropriate number of health planning regions and reconfiguring the regions if necessary to enhance their effectiveness as mechanisms for health planning.



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CHAPTER ONE

INTRODUCTION

Montana is currently engaged in a far-reaching process of health care reform. In 1993, the Montana State Legislature, concerned with rapidly rising health care costs and the plight of those lacking adequate health insurance coverage, enacted Senate Bill (S.B.) 285. The ultimate goal of S.B. 285 is an integrated health care system that assures all Montanans "access to quality health services at costs that are reasonable." To reach this goal the bill created the Montana Health Care Authority (MHCA) and directed it to complete a number of tasks relating to health care reform.

A major activity of the MHCA over the past year has been to develop two statewide universal access plans. One plan calls for universal access through a single payer system, while the other would provide universal access through a regulated multi-payer system. Draft plans were distributed to the public for comment in July 1994. The MHCA will submit the final versions of the universal access plans to the legislature in October 1994. A requirement of both plans is the inclusion of a comprehensive inventory and an assessment of health resources in Montana. The 1994 Health Resource Management Plan (HRMP) provides this overview. It is based on data gathered at the state and regional level.

While the 1994 HRMP has immediate use, it also serves the State's longer term goals. The 1994 HRMP is the starting point for a revised long-term state and regional health planning process. The participants in the planning process will be the MHCA and the five regional health care planning boards established by S.B. 285. The regional health care planning boards include representatives from each county in the region and are an integral part of the planning process. The need for a comprehensive planning process is clearly stated in S.B. 285 which calls for, "(c)omprehensive health planning through the application of a statewide health care resource management plan that is linked to a unified health care budget."

A. REQUIREMENTS OF THE HEALTH RESOURCE MANAGEMENT PLAN

S.B. 285 describes in detail the elements that are to be included in the HRMP. The HRMP is to have:

- A statement of principles used in the allocation of resources and in establishing priorities for health services;
- Identification of the current supply and distribution of:
 - hospital, nursing home and other inpatient services;
 - home health and mental health services;
 - treatment services for alcohol and drug abuse;
 - emergency care;
 - ambulatory care services, including primary care resources;
 - nutrition benefits, prenatal benefits, and maternity care;
 - human resources;
 - health science library resources and services;
 - major medical equipment; and
 - health screening and early intervention services;
- A determination of the appropriate supply and distribution of the resources and services identified ... and of the mechanisms that will encourage the appropriate integration of these services on a local or regional basis. To arrive at a determination, the authority shall consider the following factors:
 - the needs of the statewide population, with special consideration given to the development of health care services in underserved areas of the state;
 - the needs of particular geographic areas of the state;
 - the use of Montana facilities by out of state residents;
 - the use of out of state facilities by Montana residents;
 - the needs of populations with special health care needs;
 - the desirability of providing high-quality services in an economical and efficient manner, including the appropriate use of midlevel practitioners; and
 - the cost impact of these resource requirements on health care expenditures;
- A component that addresses health promotion and disease prevention and that is prepared by the department of health and environmental sciences in a format established by the authority;
- Incentives to improve access to and use of preventive care; primary care services; including mental health services; and community-based care;
- Incentives for healthy lifestyles;
- Incentives to improve access to underserved areas, including:

- a system by which the authority may identify persons with an interest in becoming health care professionals and provide or assist in providing health care education for those persons; and
 - tax credits and other financial incentives to attract and retain health care professionals in underserved areas;
- A component that addresses integration of the plan, to the extent allowed by state and federal law, with services provided by the Indian Health Service and by the United States Department of Veterans Affairs and by the Medicaid and Medicare programs.

B. GOALS OF THE HRMP

The HRMP should be viewed in the context of its short and long-term goals as outlined in S.B. 285:

The immediate goals are to:

- *Present an inventory of current health care resources in Montana.* The HRMP represents the most comprehensive assessment of Montana's health care resources currently available. The HRMP considers a broader scope of health care resources than any other statewide report, both in terms of the number of resources inventoried and the data sources used to examine those resources.
- *Provide a guide for the design of the resource section of the unified health data base.* S.B. 285 calls for the development of a statewide unified health care data base. A portion of the unified health care data base is to contain information detailing the distribution of health care resources and the ability of those resources to meet current needs. The experience gained in the development of regional and statewide health resource plans will be invaluable in designing the health resources section of the unified health care data base. As a result of the HRMP, clear and precise data requirements and specifications can be developed.

The long-term goals are to:

- *Serve as the central document in a process of comprehensive state health planning.* In the long term, the HRMP will be a vital document for implementing a system of universal access to health care in Montana. In a system whose objectives are to achieve universal access and to operate within global budgets, establishing priorities among various health care needs will be imperative. By gathering comprehensive data on health resources and developing techniques and standards for the proper allocation of these resources, the HRMP will allow individual resource decisions and policies to be placed in a statewide context.

- *Serve as a vehicle for integrating the state and regional health planning processes.*
A major task of the regional boards has been the development of individual Regional Health Resource Plans. Drawing on data from the regional resource plans and other sources, the HRMP aggregates regional data to form a composite picture of the state's health resources. The work of the regional boards and the production of the statewide HRMP are each vital parts of the statewide planning process called for in S.B. 285. Both the HRMP and the regional resource plans are required to be updated yearly.

C. ISSUES FOR FUTURE HEALTH RESOURCE MANAGEMENT PLANS

As the first step in what will be an ongoing process of comprehensive health planning, the preparation of the 1994 HRMP has encountered obstacles that need to be addressed and overcome in future years. The two most significant areas are: the limitations of currently available data on health resources and the lack of generally accepted standards to assess the adequacy of health resources.

- *Limitations of the current health resources data.* In order to present as complete a picture of Montana health resources as possible, the Regional Health Resource Plans, and consequently the HRMP, have drawn together data from a variety of sources. The large number of sources that have been used creates logistical problems for data collection, and raises questions about data consistency. The data used in the HRMP were obtained from the best available sources. However, many of these data sources do not possess the level of detail and accuracy that will be needed in a comprehensive health planning process. If the HRMP is to fulfill its long-term goals, improved data collection is imperative. Future data must more accurately reflect actual health care resources. Improvements may include the modification of existing data collection tools and the application of more stringent tests to assure the validity and accuracy of collected data.
- *Lack of standards.* Determining the adequacy or inadequacy of many of the health resources discussed in the HRMP is not possible due to the lack of generally accepted standards for appropriate resource allocation. Developing consensus on the appropriate allocation of health resources is a long-term objective of the health planning process. A major task of future HRMPs will be to develop standards for resource allocation which effectively balance the competing goals of accessibility and cost-effectiveness.

D. THE STRUCTURE OF THE REPORT

The HRMP is organized into chapters corresponding to the health resources identified in S.B. 285. Each chapter is structured as follows:

- *Background.* The background provides a brief overview of a particular health resource and its role in the health system.
- *Inventory.* The inventory presents data available to assess the supply of the resource. When a resource is comprised of varying providers and/or types of services, these components are identified and discussed. In general, both state and regional data on the resource will be presented. Where appropriate, data is presented at the county or community level.
- *Discussion.* The discussion offers measures of the adequacy of individual health resources and services. When available, Montana specific standards -- such as State Health Plan formulas for nursing home bed need and home health services -- are presented. In other cases, federal measures of resource availability such as Medically Underserved Areas (MUAs) and Health Professional Shortage Areas (HPSAs) are discussed. Finally, when no state or federal standards exist, alternative measures such as waiting lists for a service, are used. The measures used in the HRMP to assess adequacy of supply are not conclusive. The assessments are offered to help place the inventory of a resource in its state and regional context. As has been noted, the development of standards that balance cost-effectiveness and accessibility will be a major task of future HRMP's.
- *Recommendations.* This section identifies possible recommendations to address health resource needs in Montana. The proposed recommendations are based upon an assessment of the resources, discussions with state officials, and state reports such as federal block grant applications or yearly plans.

CHAPTER TWO

STATEMENT OF PRINCIPLES

A. GUIDING PRINCIPLES

1. Goal of the State's Health Policies

The goal of the state of Montana's health-related policies is to improve the health status of its population. To achieve this goal, the state should develop and implement a multi-faceted strategy that includes efforts to improve the population's health-related behavior, other public health-oriented activities, and health care system reform.

2. Health Care System Reform

In pursuit of this goal, it is the policy of the state of Montana to ensure that all residents have access to quality health care services at costs that are affordable. To do so, it is necessary to develop a health care system that is integrated and subject to the direction and oversight of a single state agency. Comprehensive health planning through the application of a statewide health care resource management plan that is linked to a unified health care budget for Montana is essential.

3. Objectives of Desired Health Care System

The health care system in Montana should:

- (a) Maintain and improve the quality of health care services offered to Montanans;
- (b) Contain or reduce increases in the cost of delivering services so that health care costs do not consume a disproportionate share of Montanans' income or the money available for other services required to ensure the health, safety, and welfare of Montanans;
- (c) Operate as efficiently and effectively as possible, with the administrative aspects of the system made as simple and "user-friendly" as possible;

- (d) Avoid unnecessary duplication in the development and offering of health care facilities and services;
- (e) Encourage regional and local participation in decisions about health care delivery, financing, and provider supply;
- (f) Facilitate universal access to health sciences information;
- (g) Promote rational allocation of health care resources in the state;
- (h) Facilitate universal access to preventive, primary, and other medically necessary health care; and
- (i) Provide accurate and accessible information that will enable consumers and providers to make more informed decisions and that provide better measures of the performance of the health care delivery system, including patient outcomes.

In reforming the health care system to achieve these objectives, the state should seek to ensure that any negative impacts of its reform policies on other aspects of the state's economy, particularly on small businesses, are minimized.

4. Consumer Education

The Montana Health Care Authority, health care providers, and other persons involved in the delivery of health care services need to increase their emphasis on the education of consumers of health care services. Consumers should be educated concerning the health care system, payment for services, ultimate costs of health care services, and the benefit to consumers generally of providing only services to the consumer that are reasonable and necessary. These educational efforts should also emphasize the importance of individuals assuming greater responsibility for their own health status by improving their health-related behavior.

CHAPTER THREE

PRIMARY CARE

A. BACKGROUND

Primary care is best defined by the following characteristics: it is frontline, ongoing, comprehensive and coordinated care (Starfield, 1993). When properly delivered, primary care is available when and where it is needed: it must be accessible and devoid of financial and cultural barriers. Primary care focuses on a person over time rather than on a specific health problem or episode of disease. This continuity of care requires that patients seek care as needed from a regular source and that providers agree to serve as that regular source. Primary care is also comprehensive, equipped to manage a wide range of commonly occurring health problems by delivering a broad spectrum of appropriate services. Finally, primary care is responsible for patient care in its entirety, requiring referral to other providers when appropriate, as well as coordination of the information generated through these other interactions (Starfield, 1993).

The primary care system serves the dual role of gateopener and gatekeeper, facilitating access to specialty care through referral and minimizing its inappropriate use. While specialty care focuses on the treatment of an identified problem, primary care, which is first-contact care, frequently relies on the treatment of undifferentiated symptoms and monitoring, evaluating, and diagnosing problems over time (Starfield, 1993).

Table III-1 Characteristics of Primary Care	
First Contact	Facilitation of access to basic services; gatekeeper to other services
Longitudinal	Relationship with a provider/team over time; focused on person rather than problem or disease
Comprehensive	Full range of services for common problems
Coordinated	Coordinator of all services; facilitation of access to specialists (gateopener); reduction in inappropriate care (gatekeeper)
Source: Starfield 1993	

B. INVENTORY

This inventory will provide an accounting of the supply and distribution of Montana's primary care physicians and mid-level practitioners, and the settings in which they work. These providers constitute the core of a primary health care system.

1. Providers

a. Primary Care Physicians

There are currently 588 primary care physicians, defined as doctors of medicine and osteopathy whose first specialty is family practice, general practice, general pediatrics or general internal medicine, licensed in Montana. This is a conservative definition that may underestimate the number of physicians providing primary care because it does not incorporate primary care subspecialists (e.g., pediatric cardiologists); physicians whose second or third specialty is primary care; or obstetricians/gynecologists (Kindig, 1994). It also does not include the role of alternative medical providers, such as naturopaths and acupuncturists who also participate in the delivery of primary care to Montanans. The role of these providers is discussed in Chapter Four.

Table III-2 shows the regional and county distribution of primary care physicians by specialty. This information reflects a physician's residence as indicated on their license

and not necessarily where they practice. There are 9 counties that have no primary care physicians.

Table III-2 Primary Care Physicians by Specialty					
Counties by Region	Family Practice	General Practice	Internal Medicine	Pediatrics	Total
Region I					
Carter	0	0	0	0	0
Custer	3	0	6	2	11
Daniels	1	0	1	0	2
Dawson	1	0	1	1	3
Fallon	3	0	0	0	3
Garfield	0	0	0	0	0
McCone	1	0	0	0	1
Powder River	0	0	0	0	0
Prairie	0	0	0	0	0
Richland	3	0	2	0	5
Roosevelt	9	1	2	2	14
Rosebud	1	1	0	1	3
Sheridan	2	0	0	0	2
Treasure	0	0	0	0	0
Valley	1	0	1	0	2
Wibaux	0	0	0	0	0
Subtotal	25	2	13	6	46
Region II					
Blaine	4	0	1	0	5
Cascade	28	2	21	12	63
Chouteau	4	0	0	0	4
Glacier	8	0	0	0	8
Hill	5	2	3	2	12
Liberty	2	0	0	0	2

Table III-2
Primary Care Physicians by Specialty

Counties by Region	Family Practice	General Practice	Internal Medicine	Pediatrics	Total
Phillips	1	0	0	0	1
Pondera	3	0	1	0	4
Teton	2	0	0	0	2
Toole	4	0	0	0	4
Subtotal	61	4	26	14	105
Region III					
Big Horn	10	0	2	1	13
Carbon	5	0	0	0	5
Fergus	7	1	2	0	10
Golden Valley	0	0	0	0	0
Judith Basin	0	0	0	0	0
Musselshell	1	0	0	0	1
Petroleum	0	0	0	0	0
Stillwater	4	0	0	0	4
Sweet Grass	1	0	0	0	1
Wheatland	2	0	0	0	2
Yellowstone	27	2	44	16	89
Subtotal	57	3	48	17	125
Region IV					
Beaverhead	4	0	4	0	8
Broadwater	3	0	0	0	3
Deer Lodge	6	0	1	0	7
Gallatin	26	1	12	7	46
Granite	1	0	0	0	1
Jefferson	3	1	1	0	5
Lewis & Clark	14	0	17	7	38
Madison	4	1	0	0	5
Meagher	1	0	0	0	1

Table III-2
Primary Care Physicians by Specialty

Counties by Region	Family Practice	General Practice	Internal Medicine	Pediatrics	Total
Park	4	0	4	1	9
Powell	4	0	0	0	4
Silver Bow	11	1	9	4	25
Subtotal	81	4	48	19	152
Region V					
Flathead	26	1	12	7	46
Lake	19	0	0	1	20
Lincoln	7	0	2	1	10
Mineral	1	0	2	0	3
Missoula	29	1	22	9	61
Ravalli	10	0	3	1	14
Sanders	6	0	0	0	6
Subtotal	98	2	41	19	160
Total Number	322	15	176	75	588
Source: HSR analysis of Civic Consulting July 1994					

b. Nurse Practitioners

Nurse Practitioners (NPs) are registered nurses with advanced training and a license to provide primary care in a wide variety of settings, including ambulatory care facilities, long-term care facilities, patient homes, and other health care institutions. They are not required to practice under the supervision of any other health care provider, and are legally liable for their own practices. Because NPs are trained to assume many of the responsibilities traditionally reserved for physicians, they can greatly increase the efficiency of primary care. One study found that NPs were able to independently handle 67 percent of patient visits within primary care practices (Spitzer, 1974). In addition to increasing efficiency, NPs may enhance the quality of primary care. Their training in areas such as

health education, disease prevention, and care management supplements physicians' medical training, providing a more comprehensive set of services.

According to the Montana Nursing Practice Act, the scope of practice for NPs entails the management of the primary health care of individuals, families, and communities including the ability to:

- Assess the health status of individuals and families using methods appropriate to the client population and area of practice, such as taking health history taking, giving physical examination, and assessing developmental health problems;
- Institute and provide continuity of health care to clients and work with clients to insure their understanding of and compliance with treatment regimes;
- Promote wellness and disease prevention programs;
- Work within nurse practitioner established protocols and recognize when to refer clients to a physician or other health care provider;
- Provide instruction and counseling to individuals, families, and groups in the areas of health promotion and maintenance, and help these individuals plan for their health care; and
- Work in collaboration with other health care providers and agencies to provide and, where appropriate, coordinate services to individuals and families.

This scope of practice was widened in 1991 when the state's general assembly passed legislation granting NPs "prescriptive authority," thereby enabling them to prescribe, dispense, and administer therapeutic drugs.

NPs play a key and increasingly important role in primary care in Montana. There are a total of 136 NPs licensed and practicing within the state, approximately twice as many as there were in 1985. This growth is due in part to changes in the state's service delivery system. The adoption of the medical assistance facility (MAF) model and the growing number of rural health clinics have created new opportunities for NPs who are willing to locate in rural areas.

c. Physicians Assistants

Physicians Assistants (PAs) are specially trained and licensed individuals who provide medical services that might otherwise be provided by a physician. In contrast to NPs who may work autonomously, PAs are required to work under the supervision of a licensed physician. Supervision does not have to be direct supervision. Physician supervision of PAs can be, and often is, provided by a physician whose practice is a considerable distance from the PA's practice. PAs similarly contribute to the efficiency of primary care practices, increasing physician productivity (i.e., number of patients seen) by approximately 40 percent (Smith, 1971; Nelson, 1982).

According to Montana law the scope of practice for PAs includes:

- Receiving patients, obtaining case histories, performing appropriate physical examinations, and presenting meaningful resulting data to the physician;
- Performing or assisting in laboratory procedures and related studies in the practice setting;
- Giving injections and immunizations;
- Suturing and caring for wounds;
- Providing patient counseling services and referring patients to other health resources;
- Responding to emergency situations that might arise in the physician's absence within their range of skills and experience; and
- Assisting the employing physician in all settings such as the office, hospitals, extended care facilities, nursing homes, and the patient's home.

There are a total of 73 licensed PAs currently practicing in Montana, a six-fold increase over 1985. This dramatic increase is also the result of expanded practice opportunities throughout the state brought about by the growth of medical assistance facilities and rural health clinics (RHC). It is expected that the rising number of PAs will be further propelled by improvements in telecommunications technology, which will enable remote physician supervision of PAs. Table III-3 shows the regional distribution of both NPs and PAs.

While PAs are relatively equitably distributed across the state (with the exception of Region 2), NPs are more heavily concentrated in the state's more densely populated western section.

Table III-3 Distribution of Physicians Assistants and Nurse Practitioners		
Region	PAs	NPs
Region I	18	12
Region II	9	20
Region III	15	26
Region IV	16	33
Region V	15	45
Total	73	136
Source: HSR analysis of Civic Consulting data, 1994.		

2. Practice Settings

Just as there are variations among the providers of primary health care services, there are differences in the settings within which these professionals deliver care. The diversity among different sites reflects the numerous factors that contribute to their make-up, such as financing source, size and capacity, patient population, organizational structure, and location.

a. Private Practice

The vast majority of primary care in Montana is delivered by physicians in private practice. These practices range from large group practices common in the metropolitan areas to small, solo practices found in the isolated areas of central and eastern Montana. Private practices are operated on a fee-for-service basis in which providers are reimbursed by the patient directly or by the patient's insurer. Private practices operated independently by NPs also contribute to the delivery of primary care, but to a much lesser degree.

b. Rural Health Clinics

The federal government has established the Rural Health Clinic (RHC) Program to address the dearth of primary care facilities in rural areas throughout the United States. In Montana's rural communities, RHCs play an increasingly important role in the primary care system. The RHC program seeks to ensure the financial viability of primary care practices in underserved areas and to create incentives for the establishment of new ones. The main mechanism employed to accomplish these objectives is an increase in the Medicare and Medicaid reimbursement rates to qualifying facilities. Rather than following the traditional fee-for-service reimbursement system, RHCs are reimbursed according to a cost-based system. In contrast to fee-for-service reimbursement, in which providers are paid a set amount per procedure, cost-reimbursement is based on the average cost per patient visit. Cost-reimbursement more thoroughly covers the costs incurred by primary care providers. As a result, this program makes it financially worthwhile for facilities to serve Medicare and Medicaid clients who often make up a significant proportion of the service population in underserved areas.

To qualify as RHCs, facilities must be located in a rural area that is federally designated as a Medically Underserved Area (MUA) or Health Professional Shortage Area (HPSA) or one that has been identified by the Governor as "underserved" (see Section III, below, for a description of MUAs and HPSAs). RHCs can be either profit or nonprofit practices, and they can be either freestanding or linked to a hospital, skilled nursing facility, or home health agency. The RHC program promotes the use of mid-level practitioners by requiring that qualifying facilities have a Nurse Practitioner, Physician Assistant, or Nurse Midwife working on-site least 50 percent of the time the clinic is in operation. Facilities are required to provide an explicitly defined set of "core services," including primary health care, to obtain RHC status. Primary care specialty practices, such as those concentrating on family practice, pediatrics, obstetrics and gynecology, and internal medicine, meet the specified service requirements.

Currently, there are 23 RHCs in Montana, 4 of which have been established since January 1993. Dahl Memorial Clinic and Roosevelt Memorial Clinic work in conjunction with the

medical assistance facilities (MAFs) in their areas, providing the outpatient services. This model of joint RHCs and MAFs has proven successful and may become more widespread in the future. Table III-4 and shows the location of these clinics.

Table III-4 Rural Health Clinics	
Region	Facility
Region I	
Baker	Community Clinic of Fallon County, Inc.
Broadus	Powder River Medical Clinic
Ekalaka	Dahl Memorial Clinic
Wolf Point	Northeast Montana Medical Group
Wolf Point	Listerud's Rural Health Clinic
Culbertson	Roosevelt Memorial Clinic
Fairview	Mondak Family Clinic
Poplar	Riverside Family Clinic
Region II	
Cut Bank	Glacier County Rural Health Clinic
Fort Benton	Benton Medical Center
Geraldine	The Geraldine Clinic
Malta	P.C. Family Health Clinic, Inc.
Region III	
Harlowton	Bair Memorial Clinic
Bridger	Clarks Fork Medical Center
Stanford	Basin Medical Center
Worden	Huntley Project Medical Center
Region IV	
Boulder	Boulder Medical Clinic, Inc.
White Sulphur Springs	Mountainview Medical Center
Ennis	Madison Valley Clinic
Harrison	Harrison Clinic

Table III-4 Rural Health Clinics	
Region	Facility
Three Forks	Three Rivers Clinic
Region V	
Hot Springs	Hot Springs Medical Clinic
Thompson Falls	Thompson Falls Clinic
Source: Montana Health Care Authority February 1994	

c. Federally Qualified Health Centers

The Federally Qualified Health Center (FQHC) Program is another federal program aimed at supporting primary care facilities in underserved areas across the nation. While its objectives coincide with those of the RHC program, the FQHC Program differs in terms of its eligibility requirements, scope of services, management, financing, and governing structures.

In contrast to RHCs, FQHCs can be located in either rural or urban areas that have been federally designated as MUAs. Furthermore, FQHCs are strictly nonprofit practices supported by federal grants from the Public Health Service or Indian health care organizations. These practices include: Migrant and Community Health Centers, Homeless Health Centers, and Urban Indian Clinics. FQHCs offer a more comprehensive set of services than do RHCs. They are required to provide primary care for all ages; as a result, primary care specialty clinics (e.g., geriatrics or pediatrics) do not qualify for FQHC status.

There are 10 FQHCs in Montana. Table III-5 gives the type and location of each of these centers. In addition to these facilities, there are 9 Indian Health Centers and Stations that provide primary care to the Native American population. These care centers are supported by federal grants administered by the Indian Health Service.

d. Hospital Outpatient Centers and Emergency Rooms

Hospitals also serve as an important setting for the delivery of primary care. According to a 1992 Department of Health and Environmental Sciences survey of hospitals, 50 of the 63 hospitals and medical assistance facilities in Montana support either hospital-based or freestanding outpatient care centers.

Hospital emergency rooms continue to serve as default primary care settings for individuals lacking health insurance or facing other barriers to primary care. This setting is inappropriate for the provision of primary care, not only because of its high costs, but also because it fails to provide the continuous, comprehensive, and coordinated services that are the hallmarks of primary care.

**Table III-5
Federally Qualified Health Centers**

Type	Facility	Location
Community Health Centers	Deering Community Health Center	Billings
	Butte Silver Bow Community Health Center	Butte
	Partnership Health Center	Missoula
Migrant Health Centers	Montana Migrant and Seasonal Farmworkers Council	Billings
Health Care For the Homeless Programs	Yellowstone County Health Care for the Homeless Program	Billings
Urban Indian Clinics	Helena Indian Alliance/Leo Pocha Clinic	Helena
	Indian Health Board of Billings	Billings
	Native American Center, Inc.	Great Falls
	North American Indian Alliance	Butte
	Missoula Indian Center	Missoula

Source: DHES, June 1994

e. Student Health Services

Student health services are provided to students at five of Montana's state universities through university operated medical clinics. In addition to providing direct primary care to students, several clinics also provide counseling, dental, and gynecological services. Table III-6 lists the state universities that operate clinics, their hours of operation, and the services they provide.

Table III-6 Montana State Universities' Student Health Services					
	Montana State University, Billings	Montana State University, Bozeman	Montana Tech of the University of Montana	Montana State University, Northern	University of Montana, Missoula
Clinic Hours	8am-5pm Mon. - Fri.	8am-4:30pm Mon. - Fri.	10am-2pm Mon. - Fri.	10am-3pm Mon. - Thur.	8am-5pm Mon. - Fri.
Services Provided					
Medical Services	X	X	X	X	X
Emergency Care		X	X		X
Laboratory	X	X	X		X
X-Ray		X			X
Gynecology	X	X	X		X
Overnight Inpatient Services					X
Nutrition		X			X
Pharmacy		X			X
Physical Therapy		X			X
Dental Services		X			X
Counseling Services	X	X			X
Health Education Services	X	X			X
Source: Student Health Services University of Montana, Missoula					

C. DISCUSSION

The adequacy of a primary care system is largely determined by the availability of the providers who serve as its foundation. This reliance on health personnel poses a particular problem for a sparsely populated state like Montana. In Montana, 46 of 56 counties are classified as "frontier" based on the federal criteria of having 6 or fewer persons per square

mile. The remaining 10 counties are classified as "rural" with population densities of 50 or fewer per square mile. This geographic isolation makes the recruitment and retention of primary providers difficult for a number of reasons. A limited population base makes it difficult for providers to support a financially viable practice. Furthermore, many providers find the isolated living conditions in the less populated areas uninviting. This situation is exacerbated by the fact that many of these areas are economically depressed and unable to offer the competitive salaries needed to lure quality providers. All of these factors contribute to the fragility of Montana's primary care system. The following section describes two federal measures used to determine the adequacy of primary care services and discusses how Montana fares relative to these measures.

1. Health Professional Shortage Areas

To be classified as a primary care Health Professional Shortage Area, an area must be a rational area for the delivery of primary medical services in which one of the following conditions exists:

- The population to primary care physician ratio is at least 3,500 to 1.¹
- The population to primary care physician ratio is between 3,500 to 1 and 3,000 to 1, and the area has unusually high needs for primary care services or insufficient capacity of existing providers.
- Primary medical care professionals in the surrounding areas are overused, excessively distant, or inaccessible.

Once designated, each HPSA is classified into one of four degree-of-shortage groups based on the physician-to-population ratio and the existence or absence of excessive need. The determination of need takes into account the birth, infant mortality and poverty rates. In Montana, 40 out of 56 counties qualify as full or partial HPSAs: a county is considered a full HPSA if it qualifies for HPSA status in its entirety; however, a county is considered a partial HPSA if only portions of it meet the federal criteria. Seventeen of Montana's

¹The definition of primary care physician used in establishing HPSA designation includes obstetricians/gynecologists in addition to those specialists discussed above

counties fall either wholly or partially within degree-of-shortage group 1, indicating they have the most severe provider shortages and medical need.

2. Medically Underserved Areas

Another federally developed means of identifying a need for primary health care services is the designation of an area as a Medically Underserved Area (MUA). MUA status is determined by computing a numeric Index of Medical Underservice (IMU), which measures the degree to which an area has poor health status and health care access problems. MUA designation is a more comprehensive measure than the HPSA designation, taking into account the following four factors: primary care physician-to-population ratio, infant mortality rate, percentage of the population with incomes below the poverty level, and percentage of the population over age 65. The IMU scale ranges from 0 to 100, with a score of 0 indicating complete underservice and a score of 100 reflecting the best service. Service areas with IMU of 62 or lower qualify for designation as an MUA. Thirty of Montana's counties are designated as full or partial MUAs. Table III-7 juxtaposes these two federal measures of health provider shortage and medical underservice for every region and county within Montana. There are 22 counties with both HPSA and MUA status.

Table III-7
Health Professional Shortage Areas and Medically Underservice Areas

Counties by Region	HPSA	Degree-of-Shortage Group	MUA	Physician to Population Ratio
Region I				
Carter	Full	1	No	0:1,503
Custer	Partial	3	No	1:1,063
Daniels	Full	3	No	1:1,133
Dawson	No	N/A	No	1:3,168
Fallon	Partial	3	No	1:1,034
Garfield	Full	1	No	0:1,589
McCone	Full	3	No	1:2,276
Powder River	Full	1	Full	0:2,090
Prairie	Full	1	Full	0:1,383
Richland	Partial	4	No	1:2,143
Roosevelt	Partial	4/1/1*	Full	1:785
Rosebud	Partial	2	Full	1:3,501
Sheridan	Partial	4	No	1:2,366
Treasure	Partial	2	Full	0:874
Valley	No	N/A	Full	1:4119
Wibaux	Full	3	Partial	0:1,191
Region II				
Blaine	Full	1	Full	1:1,345
Cascade	No	N/A	Partial	1:1,233
Chouteau	No	N/A	Full	1:1,363
Glacier	Full	1	Full	1:1,515
Hill	Partial	1	No	1:1,471
Liberty	Partial	1	No	1:1,147
Phillips	Full	3	Partial	1:5,163
Pondera	Full	2	Partial	1:1,608
Teton	Partial	4	No	1:3,285
Toole	Partial	1	Full	1:1,261

Table III-7
Health Professional Shortage Areas and Medically Underservice Areas

Counties by Region	HPSA	Degree-of-Shortage Group	MUA	Physician to Population Ratio
Region III				
Big Horn	Full	2	Full	1:872
Carbon	Full	4	No	1:1,616
Fergus	No	N/A	No	1:1,208
Golden Valley	Partial	1	Full	0:912
Judith Basin	Full	1	Full	0:2,282
Musselshell	Full	2	Full	1:4,106
Petroleum	Full	1	Full	0:519
Stillwater	No	N/A	No	1:1,634
Sweet Grass	Full	4	Partial	1:3,153
Wheatland	Partial	1	No	1:1,123
Yellowstone	Partial	2	Partial	1:1,274
Region IV				
Beaverhead	No	N/A	Partial	1:1,053
Broadwater	No	N/A	No	1:1,106
Deer Lodge	No	N/A	No	1:1,468
Gallatin	Partial	2/4*	No	1:1,097
Granite	No	N/A	Full	1:2,548
Jefferson	Partial	1	No	1:1,588
Lewis and Clark	Partial	2/4*	Partial	1:1,249
Madison	Partial	2	Partial	1:1,198
Meagher	Full	1	Full	1:1,819
Park	Partial	1	No	1:1,618
Powell	Partial	2/3/4*	No	1:1,655
Silver Bow	No	N/A	No	1:1,237

Table III-7 Health Professional Shortage Areas and Medically Underservice Areas				
Counties by Region	HPSA	Degree-of-Shortage Group	MUA	Physician to Population Ratio
Region V				
Flathead	No	N/A	No	1:1,287
Lake	No	N/A	Partial	1:1,052
Lincoln	Partial	3/4*	No	1:1,748
Mineral	No	N/A	Full	1:1,105
Missoula	No	N/A	Partial	1:1,290
Ravalli	No	N/A	Partial	1:1,786
Sanders	Full	3	No	1:1,444
Total Number	40		30	1:1,359
Sources: Federal Register, Volume 59, No. 14, January 1994 & U.S. Bureau of Primary Care July 1994 *subareas within county have been assigned differing degrees of shortage as indicated.				

D. RECOMMENDATIONS

Based upon a review of the available data and state documents regarding primary care, the following recommendations are offered to improve Montana's primary health care system:

- Encourage the use of Nurse Practitioners and Physicians Assistants in rural areas and the continued growth of rural health clinics and medical assistance facilities that use these mid-level practitioners.
- Support physician recruitment programs that provide financial incentives to primary care physicians to locate in underserved areas. Existing programs include the National Health Service Corps at the national level and the medical school loan repayment and rural physician tax incentive programs at the state level.
- Support newly developed in-state educational programs for primary care physicians and mid-level practitioners, including the Family Practice Satellite Program, Rocky Mountain College's Physician's Assistant training program, and Montana State's rural Nurse Practitioner Program.

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CHAPTER FOUR

ALTERNATIVE CARE PROVIDERS

A. BACKGROUND

Alternative providers --including acupuncturists, chiropractors, direct-entry midwives, and naturopaths -- offer care to individuals searching for non-traditional health services.

Unlike other health care professionals, alternative providers rely on non-traditional, non-invasive procedures and avoid the use of prescription medications. Most of these providers work in private practices.

B. INVENTORY

Acupuncturists, chiropractors, direct-entry midwives and naturopaths must be licensed to practice in Montana. All of these providers, except for direct-entry midwives, are required to have formal education in their field.

- **Acupuncturists:** Acupuncturists relieve pain and illness by inserting needles into specific parts of a patient's body. These insertions help patients rechannel their energy and reduce their pain. Many disorders are treated by acupuncturists, including toothaches, headaches, and bronchial asthma in children. In order to be licensed to practice in Montana, an acupuncturist must be a graduate of a nationally accredited school of acupuncture and must pass an examination prepared and administered by the Montana Board of Medical Examiners. There are 40 acupuncturists in Montana as indicated in Table IV-1.
- **Chiropractors:** Chiropractors provide immediate relief of pain by manipulation or adjustment of a patient's tissues. Chiropractors usually treat patients who have problems related to their spinal columns. In order to be licensed in Montana, chiropractors must have completed two years of undergraduate education and must be a graduate of a four-year chiropractic school approved by the Montana Board of Chiropractors. In addition, they are required to pass an examination administered by the Montana Board of Chiropractors. There are 178 chiropractors in Montana with a low of 16 in Region I and a high of 65 in Region V as Table IV-1 shows.
- **Direct-Entry Midwives:** Direct-entry midwives provide care to women with low-risk pregnancies during pregnancy, labor, childbirth and the postpartum period. No formal education is required to practice direct-entry midwifery in Montana.

However, in order to become licensed, a direct-entry midwife must acquire practical midwifery experience in a home, clinic or hospital setting. In addition, they must pass annual examinations prepared by a certified nurse midwife in consultation with the Montana Board of Alternative Medicine. There are nine direct-entry midwives in Montana as indicated by Table IV-1.

- **Naturopaths:** Naturopaths are specialists in natural medicine. They treat their patients through the stimulation of inherent self-healing processes. Naturopaths can perform physical and gynecological examinations as well as diagnostic tests. They are trained in natural therapies, including clinical nutrition, homeopathic medicine and natural childbirth. In addition, naturopaths can perform minor surgery and can prescribe topical drugs, whole gland thyroid, homeopathic preparations and oxytocin. In order to practice in Montana a naturopath must be a graduate of a four year, full-time resident program of academic and clinical studies, and must pass an examination administered by the Montana Board of Alternative Medicine. There are 20 naturopaths in Montana as Table IV-1 indicates.

Table IV-1 Alternative Health Care Providers by Region				
Region	Acupuncturists	Chiropractors	Direct-entry Midwives	Naturopaths
I	1	16	0	0
II	0	18	1	2
III	1	29	0	1
IV	16	50	1	5
V	22	65	7	12
Total	40	178	9	20
Source: HSR Analysis of Civic Consulting Data, 1994				

C. DISCUSSION

It is not possible to determine adequacy of resources since the current demand for these services is unknown. In addition, while these providers differ in philosophy from more traditional providers, they treat many of the same conditions as do more traditional providers. Therefore, a patient with any number of conditions could visit a more traditional provider if an alternative provider was not accessible.

D. RECOMMENDATIONS

Based on an examination of available data, the following recommendation is offered regarding alternative health care professionals:

- Efforts to better understand the role of alternative providers should be made, including the collection of more detailed data.

Sources

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CHAPTER FIVE

MATERNITY CARE

A. BACKGROUND

The goal of a maternity care system is to promote the health and well-being of childbearing women and their infants. The scope of maternity services has evolved considerably over the past few decades in response to the growth in knowledge about the many factors affecting maternal health and birth outcome. Maternity care is no longer strictly limited to medical care focusing on labor and delivery, but entails a broad spectrum of psychosocial and biological services delivered over the course of women's childbearing years.

Comprehensive maternal health care should include the following continuum of services:

- Family planning and preconceptional care;
- Prenatal care;
- Intrapartum care;
- Postpartum care; and
- Infant Care.

Family planning is the first service in the continuum of maternity care. Unwanted and mistimed infants are at increased risk of morbidity and mortality. The Alan Guttmacher Institute estimates that approximately 57 percent of infants born in the U.S. are unintended (Kotch et al, 1992). Clearly, helping women time and plan for their pregnancies is a priority of maternity care.

Prenatal care is a comprehensive package of services delivered to women during pregnancy. It consists of three core activities:

- Risk assessment or screening for correctable causes of morbidity or mortality;
- Treatment of medical conditions and reduction of risk where appropriate; and
- Education on risk reduction and general information sharing on topics such as pregnancy, medical care, and infant feeding (Kotch et al., 1992).

These activities take place over the course of a woman's pregnancy and have proven to significantly reduce the risk of poor birth outcome, especially low birthweight. However, for prenatal care to be effective it must be initiated early, during the first trimester. In addition, it must be continuous and address the psychosocial and biomedical aspects of pregnancy.

Intrapartum care mainly consists of the medical services provided to women during labor and delivery that in a hospital setting. These services should include maternal and fetal assessment and the monitoring of such conditions as fetal heart rate, cesarean section, and neonatal resuscitation (Kotch et al., 1992).

Postpartum care focuses on women's stabilization and recovery following delivery. It should also include an educational component addressing the concerns and needs of new mothers and their infants, such as breastfeeding and parenting practices.

Infant care is the final service in the maternity care continuum. For healthy newborns, infant care consists of an array of "well baby" services which include routine physical examinations, immunizations, screening for metabolic and genetic disorders, and other preventive care. Infants with special health care needs require a more extensive array of specialty services.¹

All of the services in this continuum further the goal of maternity care by reducing the number of unintended pregnancies and preventing maternal and infant morbidity and mortality (Kotch et al., 1992).

The infant mortality rate (i.e., the number of babies dying in the first year of life per one thousand live births) is a key indicator of the health status of pregnant women and infants and a reflection of the quality and accessibility of maternity care. The leading cause of infant mortality is low birthweight (i.e., less than 2500 gms) which is the result of babies being born too small or too soon. Montana's infant mortality rate was 7.4 per 1,000 in 1992, comparing favorably with the national rate of 8.5 per 1,000 (Montana Health Statistics Program, 1994). Nevertheless, infant mortality inflicts a fairly heavy burden on the state. Of the 11,468 infants born in Montana in 1992, 85 died before reaching their

¹See Chapter Fourteen for a further discussion of children with special health care needs.

first birthday. These deaths are costly in terms of personal suffering and medical expense (Montana Family/Maternal and Child Health Bureau, 1994).

The infant mortality rate may also indicate differences in access to health services among women within the state. Between 1988 and 1992, the average infant mortality rate for whites was approximately 8 per 1,000; whereas, the rate among Indian people was 16 per 1,000 (F/MCH Bureau, 1994). This enormous racial disparity poses a unique challenge to Montana's maternity system and suggests room for improvement.

B. INVENTORY

The strength of a maternity system is principally determined by its personnel and infrastructure. This section will inventory the supply and distribution of the providers, programs, and facilities that serve Montana women and infants before, during, and after pregnancy.

1. Maternity Care Providers

Providers are the cornerstone of a maternity care system. The professionals involved in the delivery of maternity care services include obstetricians/gynecologists, maternal-fetal subspecialists, certified nurse midwives, and primary care physicians. Table V-1 displays the regional distribution of maternity care providers in Montana.

a. Obstetricians/Gynecologists

Obstetricians/Gynecologists (OB/GYNs) are physicians with specialty training in women's reproductive health. They are the primary providers of prenatal and obstetric care. There are currently 70 OB/GYNs licensed in Montana, 55 (79%) of whom practice in the following seven metropolitan counties: Cascade, Yellowstone, Gallatin, Silver Bow, Lewis and Clark, Flathead, and Missoula. This lopsided distribution results because OB/GYNs rely upon a sufficient patient base to sustain a viable practice, and are drawn to urban centers.

b. Maternal-Fetal Subspecialists

Perinatologists are subspecialists who provide obstetric care to high risk pregnant women, while neonatologists are subspecialists trained in the care of medically fragile newborns. There are three of these providers in Montana. There is one neonatologist practicing at St. Vincent Hospital in Billings, and both a perinatologist and neonatologist (the state's most advanced perinatal team) practicing at Montana Deaconess Medical Center in Great Falls. These physicians are capable of managing the majority of the state's high risk births with the exception of the most severe cases (SRS, 1994).

c. Certified Nurse-Midwives

Certified nurse-midwives (CNMs) are registered nurses with training in midwifery. CNMs are certified by the American College of Nurse-Midwives and their practice entails "the independent management of essentially normal newborns and women antepartally, intrapartally, and postpartally and/or gynecologically (Kotch et al. 1992)." There are 13 CNMs practicing in Montana. Most CNMs work independently in freestanding clinics with physician back-up or in a collaborative practice with physicians. The majority of CNMs attend deliveries in a hospital setting. There is a large group of CNMs working at Elizabeth Seton Clinic that is connected to St. Vincent Hospital in Billings (Montana Perinatal Program, 1994).

Direct Entry Midwives (DEMs) also participate in the delivery of maternity care. Although DEMs receive no formal training, they are licensed by the Board of Alternative Medicine and subject to annual examinations. Direct entry midwifery was authorized by the state legislature in 1989. There are currently nine DEMs practicing within the state.²

² See Chapter Four for a further discussion of DEMs.

d. Primary Care Physicians

Primary care physicians also provide maternity care. Family and general practice physicians provide family planning, prenatal and obstetric care to women of childbearing age, while pediatricians provide "well baby" care to healthy newborns.³

Table V-1 Distribution of Maternity and Perinatal Care Providers					
Region	Obstetricians	Perinatologists	Neonatologists	Certified Nurse-Midwives	Direct Entry Midwives
Region I	5	0	0	1	0
Region II	12	1	1	2	1
Region III	15	0	1	5	0
Region IV	17	0	0	4	1
Region V	21	0	0	1	7
Total	70	1	2	13	9
Source: HSR analysis of Civic Consulting data, 1994					

The precise volume of maternity care delivered by these various provider groups is not possible to determine given available information. Ninety percent of all births in 1992 were attended by medical doctors; however, the proportion handled by obstetricians versus primary care physicians is unknown. Likewise, CNMs and DEMS together delivered 6.3 percent of the births in that year, but the contribution of each group is obscured (Table V-2).

³ See Chapter Three for a discussion of primary care physicians.

Table V-2 Montana Births by Attendant	
Birth Attendant	Percentage Births Delivered
Medical Doctor	89.7%
Doctor of Osteopathy	2.7%
Certified or Direct Entry Midwife	6.3%
Other Midwife	.6%
Other	.6%
Source: Montana Vital Records and Statistics Bureau, 1994	

2. Public Health Programs

The majority of women receive maternity care from providers engaged in private practice. However, a substantial number of women, particularly those who are poor, rely on public facilities for maternity care. The Department of Health and Environmental Sciences' Family/Maternal and Child Health (F/MCH) Bureau is the state agency charged with assuring that the health needs of Montana's women, children, and families are met. Among other activities, it administers federally and state funded prenatal care and family planning programs.

a. Montana Perinatal Program

The Montana Perinatal Program (MPP) within the F/MCH Bureau is responsible for public health services to Montana's women and infants. Its mission is to promote healthy pregnancy outcomes and reduce infant mortality. The primary vehicle employed in pursuit of this goal is Montana's Initiative for the Abatement of Mortality in Infants, better known as the MIAMI Project. The MIAMI Project has four major components:

- **Local Projects.** The MIAMI project provides direct services at local health departments to high risk pregnant women and their infants. These services include prenatal care and case management aimed at reducing the incidence of low birth weight and other poor birth outcomes. These projects have consistently expanded since their introduction in 1986. There are currently 17 counties with local projects

and an additional 15 under development. Local MIAMI Projects are now accessible to 74 percent of the pregnant women in Montana and the projects goal is to reach 95 percent. In 1994, local MIAMI Projects served 1,900 people (F/MCH Bureau, 1994).

- *Medicaid Changes.* A variety of changes in Medicaid have increased the financial access of low income women and infants to prenatal and obstetrical services. Examples of these changes include: extension of eligibility to pregnant women and children up to age six in families with income at or below 133 percent of the federal poverty level; increases in obstetricians' and pediatricians' reimbursement rates; and extension of coverage to include Targeted Case Management for high risk women.
- *Fetal/Infant Mortality Review.* Multi-disciplinary teams review and investigate the causes of all late fetal and infant deaths that occur at seven of the local projects and the Billings Area Office of Indian Health Services.⁴ The process identifies biologic, social, economic and systemic contributors to fetal and infant death in an effort to determine their policy implications.
- *Public Education.* The MIAMI Project supports public education efforts at the local and state level. Local projects inform their communities about the availability of maternity services and resources. A state-wide multi-media campaign, entitled "Baby Your Baby," educates the public on issues related to pregnancy and parenting.

b. Family Planning Program

The F/MCH Bureau, through the Family Planning Program (FPP), operates 14 family planning clinics that serve 29 cities throughout the state. These clinics provide low cost, high quality reproductive health services to women of childbearing age, with priority given to low income women. FPP served 27,022 clients during state fiscal year 1993, 82 percent of whom were at or below 150 percent of the federal poverty level (F/MCH Bureau, 1994).

⁴Counties with projects or Indian Health Services sites submitting reviews include Big Horn, Cascade, Hill, Flathead, Lewis and Clark, Missoula, Roosevelt, Silver Bow, Yellowstone. Local projects in Gallatin and Ravalli counties have reviews under development.

3. Hospitals

While the settings in which women receive family planning and prenatal care vary considerably, nearly 97 percent of women deliver in hospitals (Table V-3). A survey conducted by the Montana Perinatal Program in April 1994 found that 42 health facilities within the state deliver babies.

Table V-3 Distribution of Montana's 1992 Births by Type of Facility	
Facility	Percentage of Births
Hospital	96.8%
Freestanding Birthing Center	0%
Clinic/Doctor's Office	.2%
Residence	2.7%
Other	.2%
Source: Montana Vital Records and Statistics Bureau, 1994	

Montana's birthing facilities are listed in Table V-4, along with the number of licensed obstetric beds each has and the volume of deliveries each conducted in 1992. Table V-4 also indicates each hospital's level of care. These levels are nationally recognized classifications that are based on a facility's equipment and providers, and their capacity to manage high risk mothers and infants. The functions of hospitals at each level can be summarized as follows:

- *Level I hospitals* provide basic obstetrical and neonatal care for uncomplicated deliveries; manage obstetric and neonatal emergencies; conduct risk assessments; ensure that appropriate consultation and/or referral takes place for high risk women and infants; and efficiently transport patients to higher level facilities if needed.
- *Level II hospitals* provide the same services as Level I hospitals, as well as managing selected high-risk pregnancies and newborns.
- *Level III hospitals* provide obstetrical and neonatal services for all maternity and neonatal patients, regardless of the degree of difficulty; conduct risk assessments; provide subspecialty consultations for high risk patients; and plan the multi-disciplinary management and therapy for women and their newborns through the postpartum period (March of Dimes, 1993).

Montana has eight Level II hospitals. Although the state has no hospitals that provide all the services of a Level III hospital, three of its Level II hospitals (Montana Deaconess Medical Center in Great Falls, St. Vincent Hospital in Billings, and Missoula Community Medical Center in Missoula)⁵ have neonatal intensive care units (NICUs). Exceptionally high risk patients are transferred to Level III hospitals out-of-state.

Table V-4
Montana Hospitals with Obstetrical Services

County by Region	Facility	Level of Care	Number of Licensed Obstetric Beds	Number of Births in 1992
REGION I				
Custer	Holy Rosary Hospital	2	30	312
Daniels	Daniels Memorial Hospital*	1	0	7
Dawson	Glendive Medical Center	1	6	75
Fallon	Fallon County Medical Complex	1	1	17
Richland	Community Memorial Hospital	1	4	144
Roosevelt	Poplar Community Hospital*	1	0	55
Roosevelt	Trinity Hospital	1	6	92
Sheridan	Sheridan Memorial Hospital	1	2	48
Valley	Frances Mahon Deaconess Hospital	1	0	130
Region II				
Cascade	Columbus Hospital	1	12	454
Cascade	Montana Deaconess Hospital	2	20	1051
Glacier	Glacier County Medical Center	1	0	42
Glacier	PHS Indian Hospital (Blackfeet)	1	0	190
Hill	Northern Montana Hospital	1	12	419
Liberty	Liberty County Hospital	1	2	20
Phillips	Phillips Community Hospital	1	2	11
Pondera	Pondera Medical Center	1	0	31

⁵Although Missoula Community Medical Center does not have a maternal-fetal subspecialist on staff, it has a pediatrician with extensive experience capable of managing high risk newborns.

Table V-4
Montana Hospitals with Obstetrical Services

County by Region	Facility	Level of Care	Number of Licensed Obstetric Beds	Number of Births in 1992
Toole	Toole County Hospital	1	0	82
Region III				
Big Horn	Big Horn County Memorial Hospital	1	0	46
Big Horn	PHS Indian Hospital (Crow Agency)	1	0	186
Carbon	Carbon County Memorial Hospital/Center?	1	0	36
Fergus	Central Montana Medical Center	1	3	164
Stillwater	Stillwater Community Hospital	1	0	26
Yellowstone	St. Vincent Hospital	2	25	1990
Region IV				
Beaverhead	Barrett Memorial Hospital	1	2	93
Broadwater	Broadwater Health Center*	1	1	3
Deer Lodge	Community Hospital of Anaconda	1	2	64
Gallatin	Bozeman Deaconess Hospital	2	16	707
Lewis & Clark	St. Peter's Community Hospital	2	14	733
Madison	Ruby Valley Hospital*	1	3	24
Meagher	Mountainview Medical Center*	1	1	4
Park	Livingston Memorial Hospital	1	5	164
Powell	Powell County Memorial Hospital	1	2	24
Silver Bow	St. James Community Hospital	2	0	585
Region V				
Flathead	Kalispell Regional Hospital	2	7	642
Flathead	North Valley Hospital	1	6	192
Lake	St. Luke's Community Hospital	1	0	102
Lake	St. Joseph Hospital	1	2	70
Lincoln	St. John's Lutheran Hospital	1	5	138
Mineral	Mineral County Hospital	1	0	8

<p style="text-align: center;">Table V-4 Montana Hospitals with Obstetrical Services</p>				
County by Region	Facility	Level of Care	Number of Licensed Obstetric Beds	Number of Births in 1992
Missoula	Missoula Community Medical Center	2	21	1403
Ravalli	Marcus Daly Memorial Hospital	1	0	189
Total	42		221	10,773
<p>Source: Montana Area Health Education Center, Montana State University <i>Perinatal Program Hospital Survey; 1994.</i> *Hospital performs deliveries, but cannot perform cesarean sections or vaginal births after cesarean sections.</p>				

C. DISCUSSION

This assessment of Montana's maternity care system considers the following:

- The supply and distribution of maternity care providers;
- The integration of the maternity care system; and
- The adequacy of prenatal care.

1. Supply and Distribution of Maternity Care Providers

In recent years, a number of factors have adversely affected the supply of maternity care providers. Obstetrics has been one of the disciplines hit hardest by escalating insurance premiums and malpractice suits. A survey conducted by the American College of Obstetrics and Gynecology found that between 1988 and 1989, 12 percent of its members had stopped practicing obstetrics completely due to the fear of malpractice suits (Kotch et al., 1992). Montana has experienced similar trends. The number of OB/GYNs practicing obstetrics has declined, and the number of primary care physicians, previously among the state's principle obstetric providers, has declined even more precipitously. Family and general practitioners now play a much smaller role in the provision of maternity care (Montana Medical Association, 1994).

Low Medicaid reimbursements for obstetric care have exacerbated this problem. Although rates increased in 1991, they are still below prevailing private sector rates, discouraging physicians from serving Medicaid clients. Furthermore, Medicaid fails to reimburse certified nurse midwives at level equal to that of physicians, creating a disincentive for their independent practice. All of these factors have placed a strain on the maternity care system.

In Montana, there are less than nine obstetricians for every 100,000 people. There are only sixteen other states with OB to population ratios of less than 10 to 100,000 (Kotch et al., 1992). According to this measure, Montana appears to have a shortage of maternity care providers. However, a large amount of maternity care is provided by primary care providers and certified nurse-midwives. To accurately assess the availability of maternity care providers, it is necessary to determine the amount of care provided by these other professionals (e.g., What percentage of primary care physicians practice obstetrics, and what proportion of their time or caseload is spent doing so?).

2. Integration of Maternity Care System

Perinatal regionalization is a means of establishing networks and referral systems between birthing facilities. Its goal is to improve the quality of care, as well as to increase the efficient use of high cost, technologically intensive services. Regionalization relies heavily on screening and risk assessment to identify high risk patients and facilitate their entry into appropriate care.

One means of assessing the progress of regionalization efforts is to look at the percentage of very low birth weight (VLBW) infants (i.e., less than 1500 gms) born in inappropriate settings (i.e., outside of Level III hospitals). Studies have shown that mortality rates are substantially lower for low birthweight babies born in hospitals with NICUs than those born in lower level hospitals (Kotch et al., 1992). Montana set the objective of delivering 90 percent of VLBW babies in its hospitals with NICUs by the year 2,000; however, as of 1991, the state had reached only 41.5 percent.

3. Adequacy of Prenatal Care

The Kessner Index is used to determine the adequacy of prenatal care based on the premise that for care to be effective, it must be initiated early and must continue throughout pregnancy. Therefore, it is a composite measure that incorporates the trimester during which prenatal care began and the number of visits made.

Between 1988-1992, 5.9 percent of all pregnant women in Montana received "inadequate" prenatal care, according to the Kessner Index. There were ten counties in which ten percent or more of the pregnant women received "inadequate" care, suggesting that there are geographic inequities in the availability and accessibility of prenatal services (Table V-5). Disaggregation of the data reveals an enormous racial disparity in adequacy of prenatal care. Nineteen percent of Indian women, as compared to only 4 percent of white women received inadequate care. These figures clearly indicate that Indian people face access barriers to maternity services.

Table V-5 Counties with Large Proportion of Pregnant Women Receiving Inadequate Prenatal Care	
County by Region	Percentage of Pregnant Women Receiving Inadequate Prenatal Care (1988-92)
Region I	
Roosevelt*	12.4
Rosebud	12.2
Region II	
Blaine*	15.6
Glacier*	15.0
Hill*	10.4
Region III	
Big Horn*	15.4
Golden Valley	21.5
Musselshell	11.6
Wheatland	14.5
Region IV	
Meagher	10.0
Source: Montana Family/Maternal and Child Health Bureau, 1994 *Counties with Indian Reservations	

D. RECOMMENDATIONS

Based upon a review of the available data, Montana's Maternal and Child Health Block Grant application, and discussions with state officials, the following recommendations are offered to improve the maternity care system in Montana:

- Public health activities targeting women of childbearing age should be supported and coordinated with private maternity care in order to promote comprehensive services and eliminate barriers to existing services. These activities include: local MIAMI projects; outreach services; health education (e.g. nutrition, smoking cessation, parenting education); support services (e.g. transportation, child care); and care coordination.
- The effects of high malpractice claims and insurance premiums on provision of obstetric care by OB/GYNs and primary care physicians should be investigated.
- Improvements of the in-state referral system in order to facilitate perinatal regionalization should be pursued.
- Indian people should be more thoroughly incorporated into efforts addressing their barriers to prenatal care.

Sources

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CHAPTER SIX

SPECIALTY CARE

A. BACKGROUND

Specialists are an essential component of the health care system in Montana. While the distinction between primary care physicians and specialists is difficult to quantify and is somewhat arbitrary, it is useful to think of specialists and primary care physicians as being at opposite ends of the health care continuum. At one end are primary care providers who treat and diagnose common illnesses and offer preventive care to patients through ongoing relationships. At the opposite end are specialists who offer care to patients for specific, narrowly defined conditions that require immediate attention and management. Specialists provide care for specific conditions, so a continuing relationship between physician and patient may not be necessary. Primary care physicians, however, continue to see patients after specialized treatment is completed and are responsible for coordinating the specialty care received by their patients. This distinction does not suggest that specialists cannot and do not provide primary care, or that primary care physicians do not provide specialty care. It offers a general contrast of the tendency of primary and specialty providers.

Specialists provide either diagnostic or therapeutic services. Specialists who concentrate on diagnoses, such as radiologists and pathologists, are not usually involved with direct patient contact. Other specialists who have more direct patient contact, concentrate on therapeutic and curative measures. These measures can be invasive, such as surgery, or non-invasive, such as prescription medications. Physicians with a very specific level of specialization require a large population base to support a practice. The more specific specialties also tend to rely more heavily on expensive technologies. These factors tend to lead specialists to practice in urban centers.

For the purpose of this chapter, specialists are defined as all physicians without a primary specialty designation of general practitioner, family practitioner, pediatrician or internal

medicine practitioner -- the so-called primary specialties. In addition, physicians practicing obstetrics, gynecology and psychiatry are excluded since they are discussed in Chapters Five and Seven.

B. INVENTORY

There are a total of 728 specialists in Montana, with 32 in Region I, 123 in Region II, 200 in Region III, 147 in Region IV and 226 in Region V. The largest specialties are surgery, with 239 physicians; anesthesiology, with 87 physicians; radiology with 55 physicians; and emergency medicine, with 55 physicians (Table VI-1). Other specialties practiced by ten or more physicians in Montana include the following: cardiovascular disease, dermatology, gastroenterology, hematology, neurology, oncology, otolaryngology, physical medicine, pathology, pulmonary disease and urology. In addition, there are a number of specialties that are practiced in Montana by fewer than ten physicians. Table VI-1 shows the number of practicing specialists in each of these categories by region.

Specialists	Table VI-1 Specialists by Region					
	Region					
	Total	I	II	III	IV	V
Anesthesiology	87	1	15	27	16	29
Cardiovascular Disease ¹	25	1	5	10	2	7
Dermatology	22	0	4	6	5	7
Emergency Medicine	55	0	9	17	10	19
Gastroenterology	14	0	2	5	2	5
Hematology	11	0	3	3	2	3
Neurology ²	24	0	5	6	4	7

¹ Included in this category are physicians who list either cardiovascular disease or pediatric cardiology as their primary specialty.

² Included in this category are physicians who list either neurology or pediatric neurology as their primary specialty.

Specialists	Table VI-1 Specialists by Region					
	Region					
	Total	I	II	III	IV	V
Oncology ³	14	0	2	5	2	5
Ophthalmology	47	3	8	10	11	15
Otolaryngology	25	3	2	6	5	9
Pathology ⁴	36	3	5	8	9	11
Physical Medicine and Rehabilitation	15	0	3	5	2	5
Pulmonary Disease	11	0	2	7	1	1
Radiology ⁵	62	6	12	12	18	14
Surgery ⁶	239	14	37	62	51	75
Other ⁷	41	1	9	11	6	14
Total	727	32	123	200	146	226
Source: Health Systems Research analysis of Civic Consulting data, 1994						

C. DISCUSSION

While specialists play a vital role in an effective health care system, assessing their adequacy as a group of providers is not possible. Evaluating the adequacy of a particular specialty is also difficult. While standards exist to assess the adequacy of the supply of primary care physicians, similar standards do not exist for most specialists. Psychiatry is

³ Included in this category are physicians who list oncology or radiation oncology as their primary specialty.

⁴ Included in this section are physicians who list pathology, anatomic pathology, chemical pathology, or forensic pathology as their primary specialty.

⁵ Included in this category are physicians who list diagnostic radiology or radiology as their primary specialty.

⁶ Included in this category are physicians who list any sub-specialists of surgery as their primary specialty.

⁷ Included in this category are physicians who list allergy, allergy and immunology, endocrinology, infectious disease, geriatric internal medicine, medical genetics, nephrology, occupational medicine, orthopedic sports medicine, rheumatology or other as their primary specialty.

the one specialty for which standards do exist. The U.S. Health Resources and Services Administration has designated mental health professional shortage areas for psychiatrists (see Chapter Seventeen).

A methodology to determine the appropriate supply and distribution of specialty care would need to consider several factors:

- *Appropriate Population Size.* Since specialists cannot depend on high population-wide utilization rates, they require a larger population base from which to draw than do primary care physicians. Therefore, to maintain professional competence and achieve financial viability, many specialists must serve in densely populated areas. An examination of the Montana specialty data shows that the appropriate population base varies by specialty. For example, radiologists are distributed relatively evenly throughout the state, while pulmonary disease specialists cluster in one location. The population base required for a cost-efficient practice depends on the demand for a particular specialty and on the range of services which a specialty offers.
- *Supporting Technology.* For many specialists, a sufficient population base cannot ensure a feasible practice if appropriate equipment is not available. Technologically advanced instruments, lab work, and procedures are often essential to a specialist's practice. Large hospitals are more likely than are small ones to have costly instruments, as well as the additional staff required to perform complicated procedures. Therefore, Region I, the only region without a large hospital of 100 or more beds, is not likely to attract specialists whose practices rely on the support available of costly equipment and additional staff.

D. RECOMMENDATIONS

Based on a review of the resources, the following recommendation is offered regarding specialists in Montana:

- Efforts should be made to gather data on the volume of and need for specialty providers in Montana. This data will help Montana develop standards and devise strategies to ensure the availability of competent and economically viable specialty care.

Sources

Civic Consulting. Bozeman, Montana. Data collected in 1994.

CHAPTER SEVEN

OTHER HEALTH CARE PROVIDERS

A. BACKGROUND

In addition to the health care providers inventoried in the preceding four chapters, there is a diverse group of other health care providers who deliver an array of additional health care services. The other health care providers described in this section include: registered nurses, licensed practical nurses, nutritionists, physical therapists, occupational therapists, respiratory therapists, clinical laboratory practitioners, radiological technologists, pharmacists, and dental care providers. Each category of provider adds a different component to the health care system. While technical assistants perform tests that help physicians diagnosis patients and pharmacists dispense prescription medications, the remaining providers are involved in direct patient care, including treatment and therapy.

All of the health care providers discussed in this chapter must be licensed in order to practice in Montana. To receive a license from the State of Montana, these health care providers must complete formal education in their field and, with the exception of nutritionists, pass an examination administered by the appropriate board.

B. INVENTORY

1. Nurses

Registered Nurses (RNs) and Licensed Practical Nurses (LPN) provide health care to the ill, injured, and infirm. Although both RNs and LPNs are educated in biological, physical, behavioral, psychological, sociological and nursing theories, LPNs complete a one-year nursing program before becoming licensed, whereas RNs must, at a minimum; complete a two-year program and many programs are three or four years in duration. Therefore, RNs are given more responsibility than are LPNs and often have supervisory

and teaching roles. Both LPNs and RNs can administer medication that has been prescribed by licensed physicians, dentists, osteopaths, and podiatrists.

There are 7,780 RNs in Montana, with a low of 720 in Region I and a high of 2,049 in Region V. There are a total of 3,036 LPNs in Montana, ranging from 227 in Region I to 898 in Region IV (Table VII-1). These differences are accounted for by the variations in regional population size. Current licensure data do not indicate whether these nurses are actively employed or seeking employment.

Table VII-1 Number of Registered Nurses and Licensed Practical Nurses, by Region				
	Number of Registered Nurses		Licensed Practical Nurses	
Region	Total	Per 1,000 Population	Total	Per 1,000 Population
I	720	8.7	227	2.7
II	1,454	10.0	568	3.9
III	1,774	10.8	672	4.1
IV	1,783	9.2	898	4.6
V	2,049	9.6	671	3.1
Total	7,780	9.7	3,036	3.8
Source: HSR Analysis of Civic Consulting Data, 1994				

2. Therapists and Counselors

Nutritionists, occupational therapists, physical therapists, and respiratory therapists offer on-going counseling and therapy to patients. Occupational, physical, and respiratory therapists offer services that help patients achieve physical independence and well-being, despite injury or illness, while nutritionists provide counseling to achieve and maintain the health of individuals through improved nutrition. Most of these providers work in a hospital-based setting, although some also work in home health agencies, hospices, nursing homes, and private practices. Basic roles and responsibilities of these therapists and counselors include the following:

- *Nutritionists* assess patients' diets and counsel them about food needed to achieve appropriate nutritional intake. There are a total of 165 nutritionists in Montana, ranging from a low of 12 in Region I to a high of 53 in Region IV (Table VII-2).
- *Occupational Therapists* provide services to patients who are limited by physical or mental illness, learning disabilities, the aging process or adverse environmental conditions. Occupational therapists may provide any service which increases patients' independence or improves their health, including teaching daily living skills, developing perceptual-motor skills, and improving work related skills to increase the range of employment possibilities. There are 197 occupational therapists in Montana, ranging from 6 in Region I to 60 in Region V (Table VII-2).
- *Physical Therapists.* Physical therapists use therapeutic exercises, topical medications, and rehabilitative procedures to correct, prevent or limit any physical impairment, injury or mental disability. There are a total of 397 physical therapists in Montana, ranging from 17 in Region I to 141 in Region V (Table VII-2).
- *Respiratory Therapists* offer treatment and diagnostic testing of patients with cardiopulmonary illnesses and abnormalities such as bronchitis, pneumonia, or other conditions related to the lung or chest. Respiratory therapists practice under the supervision of a physician. There are 245 respiratory therapist in Montana, ranging from 16 in Region I to 63 in Region III (Table VII-2).

Table VII-2 Physical Therapists, Occupational Therapists and Respiratory Therapists, by Region				
Region	Nutritionists	Occupational Therapists	Physical Therapists	Respiratory Therapists
I	12	6	17	16
II	21	51	66	60
III	36	29	68	63
IV	53	51	105	46
V	43	60	141	60
Total	165	197	397	245
Source: HSR analysis of Civic Consulting Data, 1994				

3. Technical Assistants

Clinical laboratory practitioners and radiological technologists perform procedures that assist in the diagnosis of patients.

- *Clinical Laboratory Practitioners* perform clinical laboratory tests that may aid in the diagnosis, prevention, or treatment of a disease. Examples of these tests are immunological and hematological tests. An accurate count of clinical laboratory practitioners is not possible, since the clinical laboratory practitioner board was created in 1993 and practitioners have until September of 1994 to become licensed. The board of clinical laboratory practitioners expects 900 practitioners to be licensed by this date (Department of Health and Environmental Sciences, 1994).
- *Radiological Technologists* operate x-ray equipment, prepare and position patients for x-ray procedures, and are responsible for processing film and maintaining x-ray equipment. There are a total of 859 radiological technologists in Montana, ranging from 93 in Region I to 230 in Region III, as indicated in Table VII-3.

Table VII-3 Radiologic Technologists by Region	
Region	Radiological Technologists
I	93
II	152
III	230
IV	162
V	222
Total	859
Source: HSR analysis of Civic Consulting data, 1994	

4. Pharmacists

Pharmacists dispense prescription medications to patients and offer limited counseling about these medications. There are 746 pharmacists in Montana. Region I has the smallest number of pharmacists with a total of 63, while Region V has the highest number with 225 (Table VII-4).

Table VII-4 Number of Pharmacists, by Region	
Region	Number of Pharmacists
I	63
II	115
III	147
IV	196
V	225
Total	746
Source: HSR Analysis of Civic Consulting Data, 1994	

5. Dental Care Providers

Dental care providers consist of licensed dentists, dental hygienists, and denturists. Their combined services meet a broad range of oral health care needs from education about dental hygiene to the diagnosis, treatment, and operation on the teeth and jaws. Table VII-5 lists the number of licensed dental care providers in Montana by region.

Table VII-5 Licensed Dentists, Dental Hygienists, and Denturists, by Region			
Region	Licensed Dentists	Licensed Dental Hygienists	Licensed Denturists
I	31	15	1
II	69	43	2
III	112	62	1
IV	116	93	3
V	150	88	4
Total	478	301	11
Source: State of Montana Board of Dentistry, 1994			

- **Licensed dentist** The Montana Department of Commerce will issue a license to individuals who have graduated from a dental school approved by the Montana Board of Dentistry and have passed written and clinical examinations approved by the board. These dentists are licensed to diagnose, treat, prescribe, or operate for

any disease, pain, deformity, deficiency, injury, or physical condition of human teeth, jaws, or adjacent structures.

- *Licensed dental hygienist* The Montana Department of Commerce will issue a license to individuals who have graduated from a dental hygiene school approved by the Montana Board of Dentistry and have passed written and clinical examinations approved by the board. These dental hygienists are licensed to perform educational, therapeutic, prophylactic, and preventive procedures related to dentistry under the general supervision of a licensed dentist.
- *Licensed denturist* The Montana Department of Commerce will issue a license to individuals who have completed at least two years of formal training from an accredited educational institution in subjects such as head and oral anatomy and denture construction and design, have completed either a one year internship under the direct supervision of a licensed denturist or has had three years of experience as a denturist in another state or Canada, and have received a passing grade on both the written and clinical examinations administered by the Montana Board of Dentistry. These denturists are licensed to design, construct, and fit dentures.

C. DISCUSSION

A satisfactory mechanism to assess the adequacy of services provided by these ancillary providers currently does not exist, with RNs and LPNs as the only professionals for which any standard is available. Therefore, it is difficult to determine if the numbers of various providers is sufficient. While Region I consistently offers the fewest number of providers, the population in Region I is smaller than that of other regions, and therefore fewer services are needed. In addition, since these services are very specific and are not needed uniformly across the population, it is difficult to determine what the demand for these practitioners is.

RNs and LPNs are the only health providers discussed in this chapter for which any national or state need methodology exists. The HRSA need methodology for RNs and LPNs determines which counties should be designated as health professional shortage areas (HPSAs). However, the methodology computes need based on the number of hospital-based RNs and LPNs. Since state data does not discriminate between hospital and non-hospital-based nurses, this methodology is not effective in Montana. In addition, since this

methodology only applies to counties with hospitals, counties without hospitals could not be designated as shortage areas, even if nursing deficiencies are common.

D. RECOMMENDATIONS

Based upon a review of the available resource data, the following recommendations are offered:

- The development of mechanisms to measure the adequacy of all ancillary providers, not only RNs and LPNs, should be explored.
- Efforts to improve data collection should be made. While a need methodology exists for RNs and LPNs, it can not be used due to insufficient data.

Sources

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Montana Codes Annotated.

CHAPTER EIGHT

INPATIENT HOSPITAL SERVICES

A. BACKGROUND

Hospitals play a central role in the availability and delivery of health care services. They are the hub around which local health systems develop and revolve. Medical providers and facilities are attracted to areas around hospitals, creating a diverse network of health care services accessible to surrounding communities. Hospitals also continue to be an access point to medical services for the growing numbers of uninsured Americans. In Montana alone, charity care accounted for 16.7 percent of the services provided in hospitals during 1992, which represented a cost of \$9.8 million (Montana Hospital Association, 1993).

More than 90 percent of the hospitals in Montana are located in rural areas. These rural hospitals play an essential role in providing access to health care in much of the state. Montana has a population density of 5.5 persons per square mile, making it both a rural and a frontier state. Without a hospital, many rural areas in Montana would have extreme difficulty recruiting health care professionals, maintaining a variety of health care services, and providing emergency services. Rural hospitals are also major employers, playing a significant role in local economies (Montana Department of Health and Environmental Sciences, 1993).

Many small rural hospitals in Montana are experiencing financial difficulties. In 1993, their profit margin was a negative 14.2 percent, continuing an eight year trend of negative profit margins (MHA, 1993). In response to the financial crises of these rural and frontier hospitals, Montana developed a new category of licensure, called a medical assistance facility (MAF). MAFs are essentially "down-sized" hospitals that are licensed to operate without the same high level of personnel needed by full-service hospitals. The option to down-size by becoming a MAF allows frontier areas to maintain an institutional health care presence in their communities.

B. INVENTORY

1. Hospitals

A hospital is a facility that operates under the supervision of a licensed physician and provides 24-hour inpatient services for the diagnosis, short-term care, and treatment of patients. A hospital must have an organized medical staff that is available 24-hours a day, 7 days a week, as well as provide 24-hour nursing care by licensed registered nurses. Inpatient services range from generalized medical-surgical procedures to highly sophisticated services performed in specially designed units. The range of services delivered by any one hospital is dependent on such factors as the population being served, the accessibility of physicians and specialists, the utilization of services, and economic feasibility.

There are 50 community, non-specialty hospitals in Montana that provide inpatient care. They range in size from 6 beds at both Daniels Memorial Hospital in Scobey and Mountain View Medical Center in White Sulphur Springs to 288 beds at Montana Deaconess Medical Center in Great Falls. Table VIII-1 lists the licensed general hospitals and the number of inpatient beds each has by region.

Table VIII-1 Community Hospitals in Montana		
Hospital Name	City	Licensed Beds
Region I		
Fallon Medical Center	Baker	12
Rosebud Health Care Center	Forsyth	20
Frances Mahon Deaconess	Glasgow	48
Glendive Medical Center	Glendive	46
Holy Rosary Hospital	Miles City	99
Sheridan Memorial Hospital	Plentywood	19
Poplar Community Hospital	Poplar	22
Daniels Memorial Hospital	Scobey	6
Community Memorial Hospital	Sidney	42
Trinity Hospital	Wolf Point	42

Table VIII-1 Community Hospitals in Montana		
Hospital Name	City	Licensed Beds
Region II		
Big Sandy Medical Center	Big Sandy	8
Liberty County Hospital	Chester	11
Teton Medical Center	Choteau	11
Pondera Medical Center	Conrad	27
Glacier County Medical Center	Cut Bank	20
Missouri River Medical Center	Fort Benton	11
Columbus Hospital Corporation	Great Falls	198
Montana Deaconess Medical Center	Great Falls	288
Northern Montana Hospital	Havre	100
Phillips County Hospital Association	Malta	21
Toole County Hospital	Shelby	20
Region III		
Deaconess Medical Center of Billings, Inc.	Billings	272
Saint Vincent Hospital and Health Center	Billings	286
Stillwater Community Hospital	Columbus	14
Big Horn County Memorial Hospital	Hardin	16
Wheatland Memorial Hospital	Harlowtown	23
Central Montana Medical Center	Lewiston	47
Carbon County Memorial Hospital	Red Lodge	22
Roundup Memorial Hospital	Roundup	17
Region IV		
Community Hospital of Anaconda	Anaconda	40
Bozeman Deaconess Hospital	Bozeman	86
St. James Community Hospital	Butte	174
Powell County Memorial Hospital	Deer Lodge	19
Barrett Memorial Hospital	Dillon	31
Madison Valley Hospital	Ennis	9
St. Peter's Community Hospital	Helena	99
Livingston Memorial Hospital	Livingston	45
The Ruby Valley Hospital	Sheridan	20

Table VIII-1 Community Hospitals in Montana		
Hospital Name	City	Licensed Beds
Broadwater Health Center	Townsend	10
Mountainview Medical Center	White Sulphur Springs	6
Region V		
Marcus Daly Memorial Hospital	Hamilton	48
Kalispell Regional Hospital	Kalispell	142
St. John's Lutheran Hospital	Libby	26
Community Medical Center, Inc.	Missoula	123
St. Patrick Hospital Corporation	Missoula	213
Clark Fork Valley Hospital	Plains	16
St. Joseph Hospital Corporation	Polson	40
St. Luke Community Hospital	Ronan	24
Mineral Community Hospital	Superior	10
North Valley Hospital	Whitefish	44
Source: Montana Department of Health and Environmental Sciences, licensing data, 1994		

Table VIII-2 lists Montana hospitals by bed size. More than 50 percent of Montana hospitals have fewer than 30 beds. Table VIII-3 indicates that in 1992, small hospitals (those with fewer than 30 beds), though more numerous than large hospitals, accounted for only 7 percent of the total revenues for all Montana hospitals. The five largest facilities admitted 44 percent of all patients, accounted for 50.9 percent of all inpatient days, and generated 52.6 percent of total revenues.

Table VIII-2 General Hospitals by Bed Size - 1994	
Bed Size	Number of Hospitals
Fewer than 30 Beds	26
30-89 Beds	12
90-189 Beds	6
Over 190 Beds	5
Source: Montana Department of Health and Environmental Sciences, licensing data, 1994	

Table VIII-3 Hospital Utilization Indicators by Bed Size - 1992			
Bed Size	Percent of Total Admissions	Percent of Total Inpatient Days	Percent of Total Revenues
Fewer than 30	10.0	11.3	7.0
30-89 Beds	19.0	15.5	14.5
90-189 Beds	28.0	22.7	26.5
Over 190 Beds	44.0	50.9	52.6
Source: Montana Hospital Association, 1992			

2. Specialized Services

Some hospitals are licensed to provide specialized inpatient services such as rehabilitation, psychiatric, and chemical dependency treatment in dedicated units. A rehabilitation unit of a hospital provides coordinated services that include the evaluation, education, treatment, and training of persons with disabilities. The objective of these services is to restore a disabled person to the highest attainable level of self-sufficiency in the shortest possible time. Table VIII-4 indicates the hospitals in Montana with dedicated rehabilitation units and the number of beds each is licensed for. A discussion of psychiatric and chemical dependency beds can be found in Chapters Seventeen and Eighteen, respectively.

Table VIII-4 Hospital Rehabilitation Beds		
Region	Facility Name	Beds
Region I		
Region II	Columbus Hospital Corporation	20
	Montana Deaconess Medical Center	30
Region III	St. Vincent Hospital and Health Center	30
Region IV		
Region V	Kalispell Regional Hospital	11
	Community Medical Center	32
Source: Montana Department of Health and Environmental Sciences, licensing data, 1994		

3. Other Hospitals

Montana residents also have access to state, federal, and specialty hospital. These hospitals are not included in the general inventory because they serve either a defined population, as in the case with Indian Health Services (IHS) and Veterans Administration facilities, or a special type of patient, such as the severely mentally ill. The state owns and operates Montana State Hospital, a mental health facility located in Warm Springs. Two private hospitals, Rivendale of Montana, Inc., and Shodair Children's Hospital, provide inpatient psychiatric services for children. For more information on psychiatric hospital (see Chapter Seventeen).

There are five federally funded hospitals located in Montana, two VA hospitals and three hospitals operated by IHS. The two VA hospitals are located in Custer County and Lewis & Clark county. Table VIII-5 lists the name, location, and number of beds for each IHS hospitals.

Table VIII-5 Indian Health Service Hospitals		
Facility Name	Location	Beds
Indian Health Service Hospitals		
Blackfeet Service Unit	Browning	27
Crow Service Unit	Crow Agency	34
Fort Belknap Service Unit	Harlem	18
Veterans Administration Hospitals		
Fort Harrison	Helena	113
VA Medical Center	Miles City	40
Psychiatric Hospitals		
Montana State Hospital	Warm Springs	284
Rivendale of Montana, Inc.	Butte	32
Shodair Children's Hospital	Helena	22
Source: Montana Department of Health and Environmental Sciences. <i>Montana County-Based Health Planning</i> . Vol. 1. Jan. 1993		

4. Medical Assistance Facilities

In 1987, the Montana State Legislature responded to the long-term financial difficulties of small frontier hospitals by creating medical assistance facilities (MAFs).

As defined by the 1987 Montana State Legislature, MAFs are health care facilities that:

- Provide inpatient care to ill or injured persons prior to their transportation to a hospital or provide inpatient medical care to persons needing that care for a period of no longer than 96 hours; and
- Are located either in a county with fewer than six residents per square mile or more than 35 road miles from the nearest hospital.

The Health Care Financing Administration (HCFA) provided a demonstration grant to create an MAF Demonstration Project that would institute these facilities throughout

Montana's frontier areas. The Montana project also received a Medicare waiver from HCFA so MAFs would be able to receive cost-based reimbursement under Medicare Part A.

The MAF Demonstration Project hopes to accomplish two main goals: (1) demonstrate that MAFs are an alternative medical facility that will maintain access to high quality, cost-effective, primary health care services for residents of Montana's frontier areas and (2) demonstrate that the MAF model has the potential for implementation in other U.S. frontier areas. To accomplish the first of these goals, the Montana State Legislature has developed flexible staffing requirements and relaxed licensing standards for MAFs. Although the medical director of a MAF must be a physician, there need not be a physician present in the community for the MAF to operate. Under MAF rules, a physician must simply be available at the facility within one hour's notice, at all times, and physician assistants and nurse practitioners are authorized to admit and treat patients in the physician's absence. The use of mid-level practitioners is advantageous to frontier areas because, although the demand for such medical staff outweighs the supply, mid-level practitioners are still more readily available in these areas than are physicians. Low utilization rates and personnel shortages in frontier areas were anticipated. MAF licensing rules reflect this by allowing MAFs to relax the usual standards for practitioner response times and staffing inpatient care areas on days when there is no inpatient population.

The MAF project has already succeeded in maintaining access to care for frontier residents. At present, there are six MAFs operating in Montana. Table VIII-6 lists their location and number of beds.

Table VIII-6 Medical Assistance Facilities		
Facility Name	City	Beds
Dahl Memorial MAF	Ekalaka	10
McCone County MAF	Circle	2
Garfield County Health Center	Jordan	2
Prairie Community MAF	Terry	2
Granite County Memorial MAF	Phillipsburg	3
Roosevelt Memorial Medical Center	Culbertson	10
Source: Montana Hospital Research and Education Foundation, 1994		

The second of Montana's MAF goals has also become a reality. The MAF Demonstration Project is the prototype for a federal program called Rural Primary Care Hospital (RPCH), which is intended to reproduce the results of the Montana MAFs in other states.

C. DISCUSSION

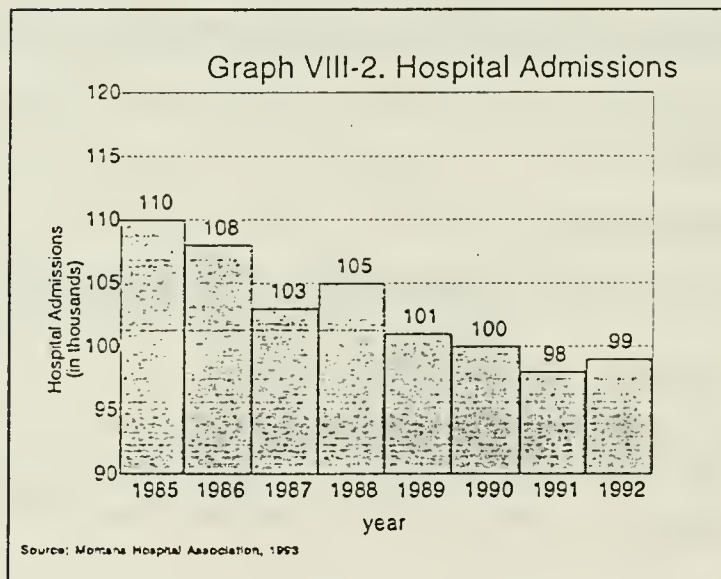
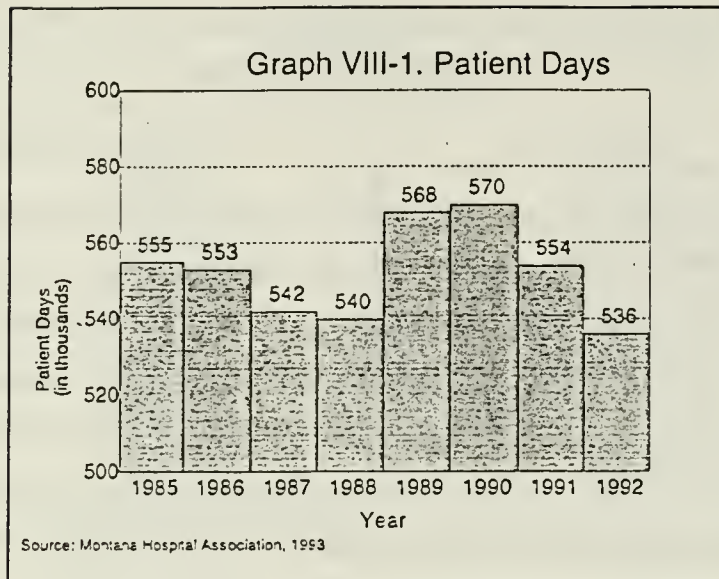
1. Hospital Assessment

This assessment of the inpatient hospital services in Montana considers the following:

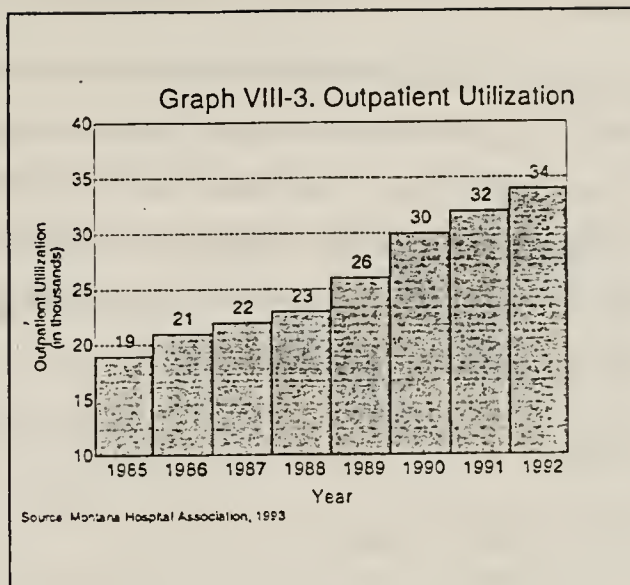
- Utilization trends of hospitals;
- The need for inpatient hospital beds; and
- Programs to assess the scope of rural health care services.

a. Utilization Trends

Data from the past seven years indicate that Montana hospitals are experiencing a decline in inpatient use. Inpatient days and hospital admission rates are evidence of this downward trend. Graph VIII-1 illustrates the continued decline in inpatient days in Montana hospitals over the last seven years. Graph VIII-2 charts a similar decline in the number of admissions to Montana hospitals. Although hospital admissions did rise slightly in 1992, they are still 11.4 percent below their 1985 level.



This decline in use of inpatient services has been accompanied by an increase in the outpatient services delivered by Montana hospitals. Graph VIII-3 demonstrates the fact that the number of outpatient surgeries being performed each year has been steadily increasing since 1985.



b. Bed Need

General inpatient hospital beds in Montana have not been subject to Certificate of Need (CON) review since 1989. As a result, there is no official bed need formula utilized by the state to assess inpatient bed need. The lack of regulation, however, has not resulted in the expansion of hospital bed capacity. According to the Montana Hospital Association, the number of licensed and staffed hospital beds has declined over the last eight years. The decrease in licensed and staffed beds is an indication that the demand for general inpatient hospital services is also in a decline.

Montana still subjects rehabilitation, psychiatric, and chemical dependency beds to CON review. According to the 1993 Montana State Health Plan, published by Montana Department of Health and Environmental Sciences, Montana is licensed for 36 more rehabilitation beds than needed through the year 1996. The DHES does not advise the addition of any more rehabilitation beds, especially since rehabilitation is a very costly service that requires a high degree of professional staffing that many locations in Montana will not be able to support. A discussion of the need for psychiatric beds is located in Chapter Seventeen and a discussion of chemical dependency beds can be found in Chapter Eighteen.

c. Programs to Assess the Scope of Rural Health Care Services

The vital role hospitals play in rural communities, coupled with hospitals', often precarious financial position, makes it important for the facility to provide an appropriate scope of services as efficiently as possible. The Community Health Services Development Program (CHSDP) helps rural Montana communities define the optimal scope of their community's health services in rural areas. The process to define the appropriate scope of community health services is based on the following assumptions:

- The rural community should be the portal for all residents seeking access to health care;
- No community provides all necessary services;
- Quality and cost must be considered in deciding on the menu of services; and
- If quality and cost considerations can be met, the service should be provided in the local community.

The program is run by the Montana Area Health Education Center and Department of Family Medicine at the University of Washington School of Medicine, in affiliation with the Montana Office of Rural Health.

CHSDP helps rural communities conduct a two-phase planning process for hospital and community health services. The first phase is focused on helping community hospitals identify their service needs and develop a strategic plan for their implementation. In the second phase, all the providers in the community participate in community wide health services planning. To date, the CHSDP program has been at least partially conducted in 19 Montana communities (Montana Area Health Education Center and Department of Family Medicine at the University of Washington School of Medicine, 1994).

2. Medical Assistance Facility Assessment

In 1992, the U.S. Department of Health and Human Services (DHHS) reviewed the four MAFs operational in Montana at that time (U.S. Department of Health and Human Services, 1993). The following is a summary of their assessment of Montana's MAFs.

Overall, the DHHS found that the Montana MAF Demonstration Project is meeting its goal to maintain access to care in frontier areas. The elderly use 72 percent of the inpatient care MAFs provide, with an average length of stay of 2.4 days. In addition, MAFs provide 24-hour emergency medical services and outpatient care to residents of the remote areas they serve. The DHHS noted that MAFs facilitate the creation of integrated rural and frontier health care networks. MAFs attract other health care facilities to their area; in fact, every MAF is co-located with a nursing home. The flexible staffing requirements of the MAF licensing rules also help attract medical professionals. In addition, each MAF has formal agreements with emergency medical services and with full-service hospitals for the transfer and referral of MAF patients to the most appropriate level of care. Lastly, MAFs appear to be more cost-efficient than the small, underused frontier hospitals due to a more efficient use of staff and decreased operating costs. Also, since MAFs are located closer to patients, they encourage the use of cost-efficient preventative health care. The DHHS review ended by concluding that MAFs are a practical and flexible way to provide access to basic inpatient care in frontier areas.

D. RECOMMENDATIONS

Based on the assessments presented in the 1993 Montana State Health Plan and the review conducted by the DHHS, the following recommendations are offered regarding inpatient care in Montana:

- There appears to be no need to increase the overall supply of inpatient hospital beds in Montana.
- Montana should continue its efforts to maintain access to health care in rural and frontier areas through innovative programs like the MAF Demonstration Project.
- Montana should encourage the integration of health delivery networks to ensure access their financial viability and maintain access for all Montana residents.

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CHAPTER NINE

EMERGENCY MEDICAL SYSTEMS

A. BACKGROUND

The major component of a state emergency medical system is a 24-hour organized trauma care system that coordinates personnel, facilities, and equipment to provide effective and timely treatment of patients with acute injuries. The goal of an organized trauma care system is to ensure that all injured patients, regardless of the severity of their injury, receive optimal care through each phase of treatment. To accomplish this goal, the trauma care system must be comprehensive, incorporating the varying resources of every medical facility. This section will address the prehospital aspects of the trauma care system. Effective prehospital care requires the coordination of three essential components: trained personnel, transportation, and communication systems.

Montana's trauma problem is significant. "Death from injury in Montana (72 per 100,000 population) is 31 percent higher than the national norm (55 deaths per 100,000). Not only is injury the leading cause of death for Montanans less than age 44, trauma causes more years of life lost than all other causes of deaths combined" (U.S. Health Resources and Services Administration, 1992). Montana's trauma problem is amplified among its Indian population, which is Montana's largest minority group, constituting 6 percent of the population. Injury is the second leading cause of death overall for Indian peoples living on Montana's seven reservations (Montana Emergency Medical Services Bureau, 1994). It is widely assumed that people die from injury in Montana because their injuries occur in remote locations. Little recognition is given to the possibility that the increased death rate could be the result of a deficient medical care system. A recent study funded by the National Highway Traffic and Safety Administration concluded that Montana has an overall preventable trauma death rate of 32 percent (U.S. National Highway Traffic Safety Administration, 1992). The fact that Montana does not have a statewide trauma system at this time may contribute to this high rate of preventable deaths.

Montana is confronted by numerous difficulties in the development of a statewide trauma system. Only one third of Montana's citizens are located in its seven major cities. The rest of the population lives in 471 communities widely dispersed throughout the rugged mountain terrain of the west and the plains of the east. Montana has a very low population density, only 5.5 persons per square mile, which results in extensive delays from time of injury to time of discovery. There are 49 community, non-specialty hospitals in Montana, 38 of which have fewer than 90 beds (Montana Department of Health and Environmental Sciences, 1994). Most of the smaller hospitals are located in remote rural towns and are unable to provide operating room services or 24-hour physician-staffed emergency departments. Trauma is considered a surgical disease that requires definitive surgical care in a hospital setting. Delayed detection time, long transport distances, limited numbers of prehospital care providers, and sparsity of hospitals makes it difficult to design a trauma system that ensures delivery of trauma patients to the appropriate surgical care facility within the "Golden Hour," "that time from injury occurrence to definitive surgical care after which the body begins an irreversible physiological decline resulting in death" (EMS Bureau, 1994).

The Emergency Medical Services (EMS) Bureau of the Montana Department of Health and Environmental Sciences (DHES) is the state's lead EMS agency. The Bureau has many responsibilities, including:

- Statewide EMS and trauma system planning;
- Emergency medical technician training and certification;
- Emergency medical services inspection, enforcement, and licensure;
- EMS legislation;
- Management of the Montana Trauma Register (hospital and system) and development of a similar prehospital EMS data collection system; and
- Management of COMFORT ONE, the pre-hospital Do-Not Resuscitate Program for terminally ill and seriously ill patients.

In 1991, the Montana Highway Traffic Safety Division provided funding to the DHES for the development and implementation of a State Trauma Register and the formation of a Trauma

System Task Force. These were designed to assist the EMS Bureau in designing a statewide, inclusive trauma system plan. The planning process was expedited in 1992 when the Division of Trauma and Emergency Medical Systems of the U.S. Health Resources and Services Administration provided a state trauma planning grant. A consultant worked with the EMS Bureau and the Montana Trauma System Task Force to write the Montana Trauma Systems Plan in accordance with the Model Trauma Care System Plan developed by the U.S. Department of Health and Human Resources. The model acts as a guide for states to develop a comprehensive trauma system by identifying the mandatory components of an inclusive trauma system. However, it does not provide formulas for calculating the amount of EMS personnel, equipment, or facilities needed in such a trauma system.

The Montana Trauma Systems Plan is intended to eliminate many of Montana's current EMS problems by instituting a regional trauma system that consists of hospitals, personnel, and public service agencies with a pre-planned response to caring for injured patients. "This requires the use of coordinated communications mechanisms, accurate identification of the level of care needed by an injured patient, rapid transport to the appropriate care facility and integration of support and rehabilitative services" (HRSA, 1992). The Montana Trauma Systems Plan is now complete and the EMS Bureau is using funds from the grant to oversee its voluntary implementation in the absence specific state of authorizing legislation. Currently, the Bureau is drafting the authorizing legislation that will be introduced during the 1995 legislative session.

B. INVENTORY

1. Prehospital Personnel

For the trauma system to provide optimal care for the seriously injured patient, prehospital personnel must be adequately trained and available in sufficient numbers throughout the state. Montana is served by a variety of prehospital providers with varying levels of skill, all of whom must be certified by the EMS Bureau. Prehospital personnel include the following:

- ***First Responders.*** Individuals, such as police or firefighters, who arrive on the scene before an ambulance does and are trained in basic emergency medical care, with the exception of transporting skills.

- **First Responder-Ambulance.** First Responder personnel who have transporting skills in addition to their basic emergency medical training.
- **Emergency Medical Technician-Basic (EMT-B).** Individuals trained in basic emergency medical techniques and transport who can provide only non-invasive services.
- **Emergency Medical Technician-Defibrillation (EMT-D).** Individuals who have advanced training which certifies them to perform defibrillation with an automatic defibrillator.
- **Emergency Medical Technician-Intermediate (EMT-I).** Individuals who have training beyond that of an EMT-D and are certified to perform IV therapy and advanced airway therapy.
- **Emergency Medical Technician-Paramedic (EMT-P).** EMTs who have the highest skill level. They can provide a full range of services, including the administration of drugs and the use of chest tubes.

The majority of prehospital providers outside of urban areas are volunteers. In addition, medical control--the authorization by a physician to provide certain medical services--is required for services and personnel beyond the level of EMT-B. The supply of prehospital providers by region is set out in Table IX-1.

Table IX-1 Prehospital Personnel by Region - 1994						
	Region I	Region II	Region III	Region IV	Region V	Total
Emergency Medical Technicians	430	479	501	658	597	2,665
Source: HSR Analysis of Civic Consulting Data						

2. Transportation

To ensure the shortest interval between injury and definitive care, the patient must be delivered to the appropriate facility with the most expedient means of transport. The transportation of trauma patients occurs on two levels: "Primary transport occurs from the scene to the nearest facility. Secondary transport (interfacility) involves the utilization of advanced life support systems to transfer an injured patient to a facility that has the

capabilities of providing higher levels of care" (EMS Bureau, 1994). Montana is equipped to provide both levels of transportation through various means, including the following types of ambulance service:

- *Licensed non-transporting units* are aggregates of prehospital providers, ranging in skill level from First Responder to EMT-Paramedic, and who are organized to respond to EMS calls and treat patients until an ambulance arrives.
- *Basic life support ground ambulances* are staffed by EMT-B and provide basic life support emergency medical services.
- *Defibrillation life support ground ambulances* are staffed by EMT-D and perform defibrillation with an automatic defibrillator.
- *Intermediate life support ground ambulances* are staffed by EMT-I and provide emergency medical services up to the level of skill appropriate to their staff.
- *Advanced life support ground ambulances* are staffed by EMT-Paramedics and provide the highest degree of mobile ground emergency medical services. Advanced life support ground services are located in major population centers throughout Montana and can reach an estimated 21 percent of the state's population within 15 minutes. There are 10 such ambulance units in the state located in the cities of Great Falls, Hardin, Bridger, Billings, Dillon, Big Sky, Bozeman, Bigfork, Missoula, and Hamilton. The addition of intermediate life support ground services increases the percent of the population served to 32 percent. However, this covers only 2 percent of the ground area of Montana (EMS Bureau, 1994).
- *Advanced life support fixed and rotor wing ambulances* are air ambulances staffed by EMT-Paramedics that provide the highest degree of aeromedical emergency services (one fixed wing unit located in Butte, Montana which provides only basic life support services). The addition of the state's aeromedical resources increases the estimated percent of the population served to 40 percent (EMS Bureau, 1994).

Ambulance squads are organized locally and are financed through various means, including community fund raising, fee for service, and city or county contributions. Approximately 90 percent of the ambulance squads are staffed by volunteers (EMS Bureau, 1994).

Unfortunately, Montana does not have any information on response times on these squads. However, the EMS Bureau is currently in the process of implementing a prehospital data base which will provide them with this information. The current supply of ambulance services by region is described in Table IX-2.

Table IX-2 Ambulance Services by Region - 1994						
Ambulance Service	Region I	Region II	Region III	Region IV	Region V	Statewide
Licensed Non-Transporting Units	5 BLS	6 BLS	13 BLS 1 ILS 1 ALS	26 BLS 2 DLS 2 ILS 1 ALS	13 BLS 4 DLS 1 ILS 2 ALS	63 BLS 7 DLS 4 ILS 3 ALS
Total Non-Transporting Units	5	6	15	31	20	77
Basic Life Support Ground Ambulances	19	12	11	16	18	76
Defibrillation Life Support Ground Ambulances	3	3	4	3	4	17
Intermediate Life Support Ground Ambulances	1	4	8	7	1	21
Advanced Life Support Ground Ambulances	0	1	3	3	3	10
Advanced Life Support Fixed Wing Ambulances	1	1	2	1 BLS	1	6
Advanced Life Support Rotor Wing Ambulances	0	1	1	0	2	4
Total	29	28	44	61	49	211
Source: HSR analysis of Civic Consulting data						

3. Public Access

Public access to emergency medical services is most efficiently provided through a single coordinated system such as a 9-1-1 telephone system. Despite the fact that 9-1-1 is not mandatory in Montana, there were 42 state approved 9-1-1 emergency telephone systems available for public use throughout the state as of January 1, 1993. Therefore, 83 percent of the state's population, or 41 of its 56 counties, is served by this system. Another 12 areas are currently planning for 9-1-1 implementation. A \$.25 charge per telephone line per month generates about \$1.1 million per fiscal year to assist communities with this implementation. EMS responses in Montana are dispatched locally, but there is no formal dispatch protocol or method of call/service coordination.

C. DISCUSSION

This assessment of Montana's emergency medical resources will consider the following:

- The training level of prehospital personnel;
- The supply and distribution of ambulance squads; and
- The need for additional trauma system components.

1. Training Level of Prehospital Personnel

The majority of prehospital providers are volunteers. Although these volunteers have received EMT training, more than 60 percent of the prehospital providers have not received specific trauma training (EMS Bureau, 1994). Montana clearly has a need for more prehospital personnel trained in trauma care. The EMS Bureau is responding to this shortage by continuing its efforts to improve and expand the EMS and trauma training offered to prehospital providers. A Critical Trauma Care course for the EMT-B, developed by the Montana Emergency and Medical Services Association, will be offered at cost on a limited basis by the EMS Bureau. The Trauma Nurse Care Course is available at no cost on a limited basis around the state. The EMS Bureau, in cooperation with Montana State University and the Montana American College of Surgeons Committee on Trauma, continues to coordinate a statewide Advanced Trauma Life Support course for physicians. The EMS Bureau is also attempting to increase the availability of basic and advanced life support training throughout the state. In addition, the proposed Montana Trauma Systems Plan includes provisions for improved education and training of all levels of EMS and trauma care providers.

2. Supply and Distribution of Ambulance Squads

There is need for intermediate and advanced life support level emergency medical services in Montana's rural areas, which are predominately serviced by basic or defibrillation ground ambulances and licensed nontransporting medical units. In addition, more aeromedical resources are needed in Montana. Aeromedical resources are of particular importance to rural regions, because bringing higher skill level resources directly to the patient decreases,

transport time and surmounts geographic barriers. However, aeromedical resources are expensive both to purchase and maintain. The need for aeromedical resources should be carefully examined in terms of cost-effectiveness, and less expensive alternatives should be seriously considered. Unfortunately, the Model Trauma Care System Plan developed by the federal government is not helpful in determining the exact need for more EMS equipment or personnel. While the plan does identify the system components mandatory for a successful trauma system, it does not provide formula for calculating the appropriate amount of EMS personnel, equipment, or facilities needed in such a system.

3. Need for Additional Trauma System Components

a. Triage

Triage is another aspect of an organized trauma system that can decrease transport time and expedite interfacility transport. Triage criteria are the measures or methods used to assess and evaluate the severity of a person's injury to assign them to the most effective and efficient regional care resources. In a rural system, however, triage criteria allows prehospital providers to recognize the major trauma patient and to notify their local facility to ensure trauma team activation. This notification also facilitates early coordination of interfacility transport. Since Montana is a rural state, triage protocol requires that all patients be taken to the closest hospital except in those few communities where there is more than one local medical facility.

b. Central Medical Resource Dispatch

The coordination of interfacility transport is dependent on the development of a Central Medical Resource Dispatch. Montana has no formal dispatch protocol or method of call/service coordination. Consequently, rural providers attempting to transfer a patient to an urban hospital are forced to call individual services many times before finding an appropriate ambulance or aircraft capable of responding. This can cause unnecessary delays in transport and does not ensure best use of resources. A Central Medical Resource Dispatch in each region will provide a single telephone number in each region for the dispatch of all life support units and the coordination of secondary transportation. The physician will have to

make only one phone call to ensure all aspects of interfacility transport are expeditiously arranged. The Montana Trauma Systems Plan includes provisions for the development of triage criteria and a Central Medical Resource Dispatch in each region to correct many of the current system's deficiencies.

D. RECOMMENDATIONS

Based on reports published by and discussions with the EMS Bureau, the following recommendations are offered to improve Montana's emergency medical services system:

- The EMS Bureau should continue its efforts to educate the public, health care providers and policymakers about the necessity for the passage and implementation of the Montana Trauma Systems Plan. Passage of the plan will promote the implementation of a regional inclusive trauma system which will coordinate communications mechanisms, identify the level of care needed by an injured patient, and rapidly transport victims to the appropriate care facility, and integrate support and rehabilitative services.
- Efforts should be made to investigate the need for more aeromedical resources throughout the state and to consider the use of more cost effective alternatives.
- Efforts should be made to develop resources to ensure that intermediate and advanced life support level emergency medical services are available to serve rural areas.

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CHAPTER TEN

AMBULATORY SURGICAL CENTERS

A. BACKGROUND

Ambulatory surgical centers are free-standing facilities where certain surgeries are performed. By offering surgical procedures without hospitalization, these centers enable patients and insurance companies to avoid expenses incurred during overnight hospital stays. Free-standing ambulatory surgical facilities must obtain CON approval before becoming licensed and certified. To meet CON approval, all free-standing centers must have two operating rooms and perform at least 600 surgical procedures annually. Each facility has a formal arrangement with a full-service hospital that agrees to provide any necessary services unavailable at the center. In addition, follow-up services are available to patients requiring them. Most ambulatory surgical facilities in Montana perform eye surgeries, although several deliver more general services. In addition, hospital out-patient departments and physicians' offices provide surgical services which overlap with those offered by free-standing ambulatory surgical centers.

B. INVENTORY

1. Free Standing Ambulatory Surgical Centers

There are nine free-standing ambulatory surgical centers in Montana (Table X-1). Region III has the largest number of centers, all of which are located in Billings. Region I is the only region without a center. Five centers specialize in eye surgery.

Table X-1 Number of Ambulatory Surgical Centers, by Region , 1994	
Ambulatory Surgical Facility	City
Region I	
None	None
Region II	
Great Falls Eye Surgery Center, Inc	Great Falls
Region III	
Billings Cataract and Laser Surgicenter	Billings
Eye Microsurgery Center, Inc	Billings
Northern Rockies Surgicenter, Inc	Billings
The Eye Surgicenter	Billings
Yellowstone Eye Surgicenter	Billings
Region IV	
Same Day Surgery Center, Inc	Bozeman
Highland View Outpatient Surgical	Butte
Region V	
Flathead Outpatient Surgical Center	Kalispell
Source: Department of Health and Environmental Sciences, 1994.	

2. Other Outpatient Surgical Facilities

In addition to ambulatory surgical centers, there are two other locations where outpatient surgery can be performed: hospital-based outpatient surgical units and physicians' offices. Unlike CON approved free-standing ambulatory surgical centers, full-service hospitals and individual physicians can offer outpatient surgery without gaining CON approval. Almost every major hospital has an ambulatory surgical center. As long as these surgical centers are on the same premises as an inpatient hospital, they are exempt from CON review.

Physicians in private practice often perform minor surgeries. While the services performed in a physician's office are often identical to those performed in ambulatory surgical centers, the reimbursement for these services may differ. While ambulatory surgical centers can receive Parts A and B of Medicare, physicians performing surgeries within their offices or within clinics which are not certified as surgical centers can receive only Part B.

C. DISCUSSION

Although the 1993 State Health Plan outlines a need methodology¹, it is impossible to determine the adequacy of outpatient surgical facilities since they do not represent a unique health resource. The outpatient services provided by ambulatory surgical centers are duplicated by hospital-based outpatient surgical units and by individual physicians' offices. While these three facilities all perform outpatient surgeries, CON law only focuses on the free-standing ambulatory surgical centers. Hospital-based outpatient surgical centers and physicians' offices are exempt from CON approval. This places free-standing centers at a competitive disadvantage since other providers offering outpatient surgical procedures are not required to establish need or fulfill particular criteria. This and other incongruities in CON law have been recognized by the legislature and the Montana Health Care Authority has been charged to conduct a study of the CON process in Montana. The study has not yet been completed.

¹ The need methodology outlined in the 1993 State Health Plan calculates need methodology as follows:

1. The current surgery rate is multiplied by the projected population three years from the date of application. From this calculation, the projected number of surgeries to be performed three years from the current date is determined.
2. The projected number of surgeries is multiplied by .55 since it is predicted that 55 percent of total surgeries are performed in an ambulatory surgical facility.
3. The Department of Health and Environmental Sciences decides, based on the above calculations, whether or not the creation of a new ambulatory facility is warranted.

D. RECOMMENDATIONS

Based on a review of the resources and discussions with state officials, the following recommendations are offered:

- A clear distinction between the services offered in ambulatory surgical facilities, inpatient surgical units and physicians' offices should be made. Efforts should be made to determine if the level of surgery performed in ambulatory surgical centers is the same as that provided in a hospital-based surgical unit or in a physician's office. If the services offered by ambulatory surgical centers, hospital-based outpatient facilities and physicians' offices differ, their distinctions should be made clear and obvious to the public.
- The examination of CON being conducted should specifically address the regulation of ambulatory surgical centers and the services that they provide. Current law only requires CON approval for free-standing ambulatory surgical centers, although other settings provide similar services. Since the services provided are similar, the regulatory strategy should be consistent.

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CHAPTER ELEVEN

MAJOR MEDICAL EQUIPMENT AND SERVICES

A. BACKGROUND

Major medical equipment refers to technologically advanced diagnostic and therapeutic equipment which is primarily, although not exclusively, located in hospitals and requires considerable capital outlays to purchase and operate. Such equipment is incorporated in the broader definition of medical technology, which also includes expensive, specialized services that have high annual operating costs and require extensive training and expertise to perform. These equipment and services include computed tomographic scanners, magnetic resonance imagers, extra shock wave lithotripsy, positron emission technology, radiation therapy, open heart surgery services, cardiac catheterization laboratories, and organ transplantation services.

Major medical technology has long been a subject of concern for all members of the health care community -- providers, consumers, researchers, and policymakers. Attention has focused on achieving an appropriate balance across three sometimes consistent, yet conflicting, objectives: ensuring access to innovative technology, controlling the costs associated with this new technology, and ensuring that the extent of a technology's diffusion does not adversely affect quality of care.

B. INVENTORY

While Montana is a sparsely populated state with no major university medical center, many hospitals in the state do provide one or more of what are commonly considered major medical technologies. Some of the specific technologies and services available in Montana are:

- *Computed Tomographic (CT) Scanner.* The CT scanner is a diagnostic device that uses ionizing radiation (X-ray) to generate images of cross-sections of the human body.

- *Magnetic Resonance Imager (MRI).* The MRI uses radiofrequency stimulation of nuclei in a magnetic field that surrounds the patient to produce cross-sectional images of body parts. Although similar to the CT scanner, the MRI produces better soft tissue contrast and differentiation between healthy and diseased tissue. It also reduces the risk to the patient of irradiation.
- *Extracorporeal Shock Wave Lithotripsy (ESWL).* ESWL is a non-invasive procedure for breaking up kidney stones that threaten to cause obstruction, infection, or pain in the body. Shock waves are directed toward the stone which is located via radiological scanners. These waves cause the stone to disintegrate.
- *Radiation Therapy.* Radiation therapy uses ionizing radiation to treat cancer patients. This form of radiation inhibits cell division and kills cancer cells without damaging surrounding cells. The high energy radiation is produced from isotope sources such as cobalt or from linear accelerators. Cobalt therapy is used for cancer near the surface of the skin while a linear accelerator is used for deeper tumors.
- *Open Heart Surgery.* Open heart surgery is a procedure through which blood circulation is diverted from the heart to a heart-lung bypass machine that maintains a constant temperature and oxygenates the blood. Freed of its circulatory function, the heart can be slowed down so that a variety of repairs can be made.
- *Cardiac Catheterization.* Cardiac catheterization is a diagnostic or therapeutic procedure in which a catheter (thin tube) is inserted into a patient's vein or artery and then manipulated so that the free end travels into the chambers of the heart. Diagnostic cardiac catheterization can provide information about the heart's function and blood supply, while therapeutic cardiac catheterization can treat anatomical or physiological conditions in the heart.

Table XI-1 presents 1992 data on the distribution of these equipment and services by region. The data are gathered from the DHES Annual Survey of Hospitals and only account for hospital-based technologies. However, according to officials in the Department of Health and Environmental Sciences (DHES), there is one stationary MRI located in Billings, Montana, at a free standing facility called Montana MRI (Occupational Health Bureau, 1994). There is also a mobile MRI service, Imaging Plus, which is based in Fargo, North Dakota, and offers services on a temporary basis to a few of the smaller hospitals in Region I and III. In addition, there are two radiation therapy units in the state located in free-standing cancer treatment centers. Since the technologies located outside hospitals are not monitored, it is impossible to determine the supply of these resources in

the state. In addition, the state does not have a mechanism for collecting data on the volume of procedures performed. The lack of these essential data severely limits any evaluation of the supply and utilization of medical technologies in the state.

Table XI-1 Distribution of Major Medical Equipment and Services by Region							
Hospital	Licensed in Hospital Beds	CT	MRI	ESWL	RT	OHS	CC
Region I							
Holy Rosary Hospital	99	X	A		X		
Glendive Medical Center	46	X	B				
Frances Mahon Deaconess	48	X	A				
Fallon Medical Hospital	12		B				
Community Memorial Hospital	42	X	B				
Region II							
Columbus Hospital	198	X	X	C	X		X
MT Deaconess Medical Ctr	288	X	X	C		X	X
Toole County Hospital	20	X					
Pondera Medical Center	27	X					
Northern Montana Hospital	100	X	X				
Region III							
Deaconess Medical Center	272	X	X*		X**	X	X
St. Vincent Hospital	286	X		X		X	X
Billings Clinic		X					
Central Montana Hospital	47	X	A				
Region IV							
Bozeman Deaconess Hospital	86	X	X	C			
St. Peter's Community Hosp.	99	X	X	C			X
Community Hosp. Anaconda	123	X					
Barrett Memorial Hospital	31	X					
St. James Community Hospital	174	X		C			
Livingston Memorial Hospital	45	X					
Region V							
Kalispell Regional Hospital	142	X	X	C	X		X
Marcus Daly Memorial Hospital	48	X					

Table XI-1 Distribution of Major Medical Equipment and Services by Region							
Hospital	Licensed in Hospital Beds	CT	MRI	ESWL	RT	OHS	CC
Comm. Medical Center, Inc.	123	X		C	X		X
St. Patrick Hospital	213	X	X	X	X	X	X
St. John's Lutheran Hospital	26	X					
North Valley Hospital	44	X					
Source: Montana Department of Health and Environmental Sciences. <i>1992 Annual Survey of Hospitals and licensing data</i> RT refers to radiation therapy OHS refers to open heart surgery CC refers to cardiac catheterization services A indicates hospitals that receive services from a mobile MRI unit 8 hours per week. B indicates hospitals that receive services from a mobile MRI unit 8 hours every 2 weeks. C Each of these hospitals uses a shared ESWL unit one day a month. * Deaconess Medical Center and St. Vincent Hospital share one MRI unit. ** Deaconess Medical Center and St. Vincent Hospital both utilize a free-standing facility called the NorthernRockies Cancer Treatment Center for RT services.							

C. DISCUSSION

Currently, Montana has no formal mechanism for regulating the growth and diffusion of major medical equipment and services. Prior to 1989, the Montana Certificate of Need (CON) program required hospitals and other medical facilities seeking to purchase equipment or offer new services that would exceed dollar thresholds for capital expenditures or operating costs, to obtain approval before initiating the project. As part of the CON process, the state had developed specific standards for the regulation and review of open heart surgery, cardiac catheterization services, CT scanners, MRIs, and radiation therapy units. However, since 1989, most hospital activities have been exempted from CON review.

Although Montana no longer reviews major medical equipment and services, many other states have increased their efforts to regulate these equipment and services through the CON process, developing service-specific standards for these medical technologies. The development of appropriate policies affecting the availability of these new technologies, however, represents a challenging task, as evidenced by the variability of state CON standards with respect to these equipment and services. These standards seek to find a

balance in ensuring access to innovative technology, controlling the costs associated with this new technology, and ensuring that the excessive diffusion of a technology does not adversely affect quality of care. With respect to this last point, research has found that, for certain surgical procedures, there is an association between poorer patient outcomes and a lower volume of procedures performed by a given provider or facility (Luft, et al. 1990).

Obviously, major medical technology presents complex issues for states to address. The legislature, in response to uncertainty about the appropriate role of state regulation, has directed the MCHA to conduct an analysis of the role of CON, including its role in regulating major medical technology. The results of this study, which is nearing completion, will be incorporated into the universal access plans submitted to the legislature in October, 1994.

D. RECOMMENDATIONS

Based on a review of the resources, the following recommendations are offered regarding major medical equipment and services:

- A study of potential mechanisms, including the CON program, to control the growth and diffusion of medical technology and services should be conducted to ensure the accessibility, cost-effectiveness and quality of these equipment and services.
- One of the major limiting factors in the review of the major medical technology resources was the lack of adequate data. Improvement of data collection methods is essential to provide the necessary information to make informed policy decisions regarding appropriate levels of resources.

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CHAPTER TWELVE

HEALTH SCIENCES AND TELEMEDICINE

A. BACKGROUND

As health care providers in a predominately rural state, health care professionals in Montana must often rely upon unconventional mechanisms to stay up to date with new medical discoveries and maintain contact with their colleagues. Without creative mechanisms to keep informed of current research and to maintain contact with other medical professionals when no major medical center is nearby, the practice of medicine can be an isolating experience. Health care professionals need the means to combat the negative effects of this professional isolation. Various electronic and computer-based mechanisms are available throughout Montana that bring health care professionals the knowledge necessary to provide informed medical care and the collegiality needed to make the practice of health care enjoyable. Two sets of services provide access to academic literature and increase peer contact: Health sciences library services allow providers to access academic research, and two electronic communication networks, the Virtual Medical Center and the Eastern Montana Telemedicine Network, promote provider interaction.

B. INVENTORY

1. Health Sciences Library Services

Library services, which have traditionally included services offered by trained librarians now include a large range of electronic services that can be used by physicians in isolated locations without direct library access. These services, which include literature searches, searches of journal holdings, and electronic journal requests, provide health care professionals with current information on academic medical research. This research can help providers make early and accurate diagnoses and can alert them to the most appropriate treatments. While ideally providers would have access to a librarian who could perform literature searches and locate the most appropriate information, most providers in Montana do not have easy access to a library or librarian.

There are 55 health science libraries in Montana which range from comprehensive public libraries to hospital libraries to small libraries with few holdings and no librarian. The number of libraries per region ranges from 8 in Region I to 16 in Region III. Table XII-1 shows the number of libraries, hospital affiliations, and the availability of librarians by region. Of the 55 total health science libraries, only 23 employ a librarian.

<p>Table XII-1 Health Sciences Libraries, by Region, 1994</p>			
	Health Sciences Libraries		
Region	Total	Affiliated with Hospital	Libraries with Librarian
I	8	6	2
II	9	4	5
III	16	3	5
IV	12	8	7
V	10	6	4
Total	55	27	23
Source: National Network of Libraries of Medicine, Pacific Northwest Region, 1994			

Of particular interest are the hospital libraries, since they are most easily accessed by health care professionals. Only 27 of the 63¹ Montana hospitals are affiliated with a library, ranging from three in Region III to eight in Region IV. Less than half of these 27 hospital libraries employ a medical librarian (see Table XII-2). Therefore, many health care providers do not have easy access to a library or to a librarian. Table XII-2 shows hospitals affiliated with a library and those hospital libraries having a librarian, by region.

¹ The 63 hospitals include general hospitals, state facilities, MAFs, VA hospitals and specialty hospitals.

Table XII-2
Hospital Libraries, by Region, 1994

Region	Hospitals Affiliated with a Library	Hospital Libraries with Librarian
I	6	1
II	4	2
III	3	2
IV	8	4
V	6	2
Total	27	11

Source: National Network of Libraries of Medicine, Pacific Northwest Region, 1994.

The providers without convenient access to a library or librarian can use computer-based library services that are available by computer and modem. These services include medical literature searches, journal holding searches, and electronic journal requests. For providers without access to a library or librarian, these computer-based services are essential for maintaining competence in an ever-changing medical world. Several studies have found that the use of library services has helped increase quality of care and decrease costs (Klein, et al, 1994; Lindberg, et al, 1993; Marshall, 1992). Physicians in one study rated information provided by library services as more useful than that provided by other sources such as lab tests and clinical consultations. Some physicians stated that review articles are more likely than textbooks, original research or colleagues to affect their clinical practice (Marshall, 1992). While providers would ideally have access to a librarian who could perform literature searches and locate the most appropriate information, the rural nature of Montana makes electronic library services an important mechanism for obtaining current medical information. Examples of available electronic services, all of which can be accessed through a personal computer, include:

- **Literature Searches** MEDLINE is an example of a bibliographic database that allows individuals to locate articles on specific issues. A brief article summary, along with the journal and author's name, is available from this database. MEDLINE is one component of a larger service called GRATEFUL MED which is available through the National Library of Medicine (NLM).

- *Database of Journal Holdings* Several databases list the journal holdings of different libraries. For example, Lasercat is a CD ROM based catalogue of library holdings in the Pacific Northwest.
- *Journal Request Systems* LONESOME DOC is a literature request line for providers that is available through GRATEFUL MED. LONESOME DOC allows a provider to establish a relationship with a library and is then able to request articles, journals, and books from the library.

While this electronic system is not as convenient as having direct access to a hospital library, it offers advantages over the use of out-dated personal textbooks and sparse personal journal holdings. In a rural state, where providers often do not have access to direct library services, electronic library services are the one link that many providers have with current academic literature.

It is impossible to accurately define the adequacy of library resources since they represent one of several channels through which physicians can obtain current information. To consider the current status of health library resources in Montana, we examined three criteria:

- Provider access to libraries and librarians;
- The availability of computer-based services through libraries; and
- Physician usage of computer-based library services.

We examined all health sciences libraries, paying particular attention to the libraries affiliated with hospitals, since these libraries are often the most easily accessed by health professionals.

- *Provider Access to Libraries and Librarians.* Access to libraries and librarians are key indicators of the level of health-related information that is available to providers. Not only do libraries and librarians provide literature to providers and enable them to locate specific articles, journals and studies, they also educate health care professionals about available computer-based services. However, of the 63 hospitals in Montana, only 27 are affiliated with a library. Only 11 of these affiliated librarians employ a librarian (see Table XII-3). Libraries that do not employ a librarian generally have a library contact who is not trained in library sciences but who can complete literature searches and journal requests. However, these library contacts are generally available only part-time.

■ *Availability of Computer Databases.* Access to computer databases is another key indicator of the comprehensiveness of a health sciences library. For example availability of DOCLINE, a literature request line available through the National Library of Medicine, is considered by NLM to be a key indicator of the comprehensiveness of a library. DOCLINE allows libraries to exchange holdings with other DOCLINE users and thus to offer a greater number of holdings to providers. A library without DOCLINE must rely solely on its own holdings. In addition, unlike the other computer-based services, DOCLINE must be accessed through a library-since it is not available on an individual basis. Only 23 of the 55 health science libraries offer DOCLINE, and 10 of the 23 hospital libraries have access to this services (see Table XII-3). Health professionals in Region I experience the greatest deficiency in electronic library services since none of the health sciences libraries in the region are connected to DOCLINE. Table XII-3 indicates DOCLINE availability by region.

Table XII-3 Health Sciences Libraries with DOCLINE, by Region, 1993		
	Health Sciences Libraries with DOCLINE	
Region	Total	Hospital Libraries
I	0	0
II	3	2
III	9	2
IV	6	4
V	5	2
Total	23	10
Source: National Network of Libraries of Medicine, Pacific Northwest Region, 1993		

■ *Physician Usage of Computer-based Library Services.* A study of 1,276 Montana physicians indicates that Montana physicians are not likely to use library services. The study, which documented physician use of information, found that while 84 percent of the surveyed physicians frequently sought information in their personal journal holdings and 64 percent found information in personal textbooks, only 14 percent frequently used journals from a library. Furthermore, only 10 percent of physicians frequently used the computer searches available through the library, and only four percent frequently complete computer searches from their offices (Flaherty, et al. 1989).

Some providers may fail to use computer-based services because they are unfamiliar with them. While the technology is clearly available to all providers, and is relatively inexpensive, many health care providers are not aware of the tools that are accessible to them. Therefore, to increase familiarity with and use of the available services and decrease the number of physicians without library links, NLM funded GRATEFUL MED Outreach Projects. These projects enabled 20 small hospitals to learn about access to MEDLINE and provided computers, training, and

on-going support to several hospitals which had not previously been electronically connected to library services (National Network of Libraries of Medicine, Pacific Northwest Region, 1994).

However, many health care professionals who are aware of available services find them inconvenient and are therefore not likely to use them. In the study of 1,276 Montana physicians, 60 percent claimed that retrieval time for locating and receiving articles was too long (Flaherty, et al. 1989). When a physician needs immediate information, use of personal holdings, whether current or not, may seem much more convenient.

2. Electronic Communication

In addition to the electronic services that allow health care professionals to access academic literature, several tools are available to providers who are searching for peer contact and advice. In large urban hospitals, providers who are presented with unusual conditions and complications have the luxury of consulting with a local colleague who can offer advice on diagnosis and treatment. However, for providers in Montana who may often work in isolated settings, diagnosing and treating a patient may become frustrating since other providers are not readily available to offer opinions. Two options are now available to Montana providers who desire increased contact with their peers: the Virtual Medical Center (VMC) and the Eastern Montana Telemedicine Project.

VMC and Telemedicine Project offer a range of services, including clinical consultations, continuing education classes, and employment listings. While VMC services are computer-based, the Telemedicine Project features are accessed through a two-way interactive video. Table XII-4 indicates services available through VMC and the Telemedicine project.

Table XII-4 Services Provide by the Virtual Medical Center and the Eastern Montana Telemedicine Project		
Services	Virtual Medical Center	Eastern Montana Telemedicine
Clinical Case Discussions	X	X
Consultative Interpretation of X-rays and other Medical Images		X
Continuing Education Classes	X	X
Electronic Mail	X	
Employment Listings	X	
Legislative Updates	X	
Private Networks	X	
Two-Way Interactive Video		X
Source: The Virtual Medical Center, 1994 and Eastern Montana Medicine Project, 1994		

a. The Virtual Medical Center

VMC is a computer-based system developed by the Montana Area Health Education Center at the Montana State University. The mission of VMC is to simulate the environment of a university medical center. The virtual medical center is intended to provide a consultative environment with "clinical departments," "specialty clinics," and other service areas.

There are several services available through this medical center, including the following:

- **Electronic Mail.** Each "department," "clinic," and service area has individual Conference areas where health care professionals can exchange questions. These exchanges are conducted through electronic mail and can be either public or private. This is the main source of peer advice available through the network.
- **Public File Areas.** The public file areas are grouped by department or specialty and contain general medical information, clinical case discussions, and health related

legislation. The File Area is also used like university bulletin board, with announcements, listings of future meetings and employment opportunities. In addition, the St. Vincent Hospital and the Billing's Health Center have developed on-line continuing education courses. Any individual file can be downloaded to a health professional's personal computer.

- *Private Networks.* Organizations can elect to provide a private network to their members. For example, the Department of Health and Environmental Sciences (DHES) has a network through VMC that allows the 40 county health departments to communicate with each other and with DHES in Helena. Similarly, the Montana Women Infant and Children (WIC) nutrition program maintains a private network that links all Montana WIC offices. These networks are password protected and only accessible to members. Private networks generally include the same services as the public files.

Since its implementation in 1993, 1400 health care professionals, including physicians, nurses, and other providers had used VMC by April 1994 (Flaherty, 1994). Considering the number of total health care professionals, potential exists to increase the use of this service.

b. Eastern Montana Telemedicine Network

While the Virtual Medical Center provides health care professionals with a mechanism to consult other providers via computer, the Eastern Montana Telemedicine Network promotes such consultations via television screen. The Eastern Montana Telemedicine Network is a five-site, interactive video network that was implemented in 1993 through a Rural Administration Electrification grant. The urban "hub" of this network is in the Deaconess Medical Center in Billings. The four rural "end users" include the communities of Culbertson, Glendive, Miles City, and Sidney. The network was established to allow rural providers to consult with specialists in Billings.

The network provides an interactive video which includes two television monitors at each site. For example, one monitor would allow a patient and provider in Glendive to see a specialist in Billings. The other monitor would be used for graphics, x-rays, and pathology slides, allowing the Glendive provider to share information with the Billings specialist. While this interactive video can theoretically be used by all providers, acceptance has been slow. Radiologists, for example, will not diagnose patients whose x-rays have been viewed

through the interactive video because they question the quality of an x-ray transferred through the video. They will, however, engage in a less active "consultative role."

Other uses of the network have included discussions with orthopedics, neurologists, dermatologists, and surgeons. However these professionals are also skeptical about diagnosing via a television monitor. One group of providers that has not been skeptical about the advantages of the network are mental health professionals. They have been the most likely to use the network, making a total of 85 mental health consultations since project implementation. Only 33 other medical consultations were made in the same period (Eastern Montana Telemedicine Project). More extensive use of the network is needed before providers can determine its usefulness and what types of diagnoses can be made over a television screen.

C. RECOMMENDATIONS

Based on analysis of resources and discussions with professional librarians and other individuals involved with creating information networks, the following recommendations are offered:

- Additional outreach programs are needed to promote use of the computer-based library services available to individual health care professionals. While services are available, providers are either unaware of them or believe that too much time is needed to access them. Programs similar to the GRATEFUL MED outreach program could increase the use of these services by rural providers, thus increasing the amount of literature available to them.
- Providers should also be made aware of the Virtual Medical Center, which offers important services such as peer advice, meeting listings, legislative updates and continuing education.
- While health professionals should be made aware of the Eastern Montana Telemedicine Project, its limitations should also be addressed. For example, the appropriateness of its use by different types of providers should be examined. While telemedicine may be appropriate for a mental health care provider, it may be less appropriate for professionals who need to physically examine a patient before making a diagnosis.

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CHAPTER THIRTEEN

NURSING HOMES

A. BACKGROUND

Although an effort is underway to develop alternative long-term care services, most long-term care in Montana is provided by licensed and certified nursing homes. Nursing homes are facilities that provide nursing care services, health-related services, and social services to two or more individuals.

Rapidly rising nursing home costs and the demands of an aging population have increasingly focused attention on long-term care in Montana. As a result of increases in overall life expectancy, the percentage of people over age 65 in Montana has risen from 10.7 in 1980 to 13.4 in 1990. Currently comprising 45.4 percent of the 65 and older population, elderly residents over age 75 are the fastest growing segment of this population. Based on estimates by NPA Data Services, the percent of elderly over age 75 is projected to increase to 50.1 percent of the elderly population by the year 2000. This increase is significant because individuals over age 75 account for almost 85 percent of the nursing home population and have the greatest long-term care needs.

While the need for long-term care grows, smaller families and the increased mobility of the younger generation have reduced the availability of family caregivers, the traditional source of long-term care. These factors have resulted in the increasing dependency of the elderly on public and private agencies, especially nursing homes, to fulfill their long-term care needs. These facilities face tremendous pressure to provide high quality, affordable care that meets the diverse needs of this population.

The demand for long-term care places a significant burden on state resources. In 1993, Medicaid long-term care expenditures exceeded \$100 million (SRS 1994), representing more than one-third of the total Medicaid budget. Nursing home care, the largest

component of the Medicaid long-term care budget, accounted for 85 percent (SRS 1994) of the \$100 million in cost. Since 1989, these costs have risen almost 30 percent.

Nursing homes provide a major component of long-term care. These facilities offer skilled nursing care, as well as other health related and social services, including:

- Nursing services provided by registered nurses (RN), licensed practical nurses (LPN), and certified nurses aides;
- Physical, occupational, and speech therapy;
- Nutritional counseling;
- Social service coordination provided by a social service designee--if the nursing home has more than 120 beds, the social service designee must have at least a Bachelor of Social Work (BSW); and
- Recreational planning.

Nursing homes provide a high level of care in an institutional environment. They are most suitable for the severely infirm elderly who have special medical needs or are unable to perform the basic functions of daily living. Although more and more elderly are being cared for in home and community settings, there will always be a segment of the population that requires the type of care that can only be provided in a nursing home. The goal for the development of long-term care services is to encourage the provision of services in the home and community, while at the same time ensuring that nursing home services are available and accessible to those people who need such services.

B. INVENTORY

1. Nursing Home Beds

Currently, 96 nursing homes in Montana serve the general population. These facilities contain a total of 6,591 licensed and certified beds and range in size from 6 beds to 278 beds. A nursing home must be licensed to operate in Montana; this license is issued by the Department of Health and Environmental Sciences (DHES). Certification determines a facility's eligibility to receive reimbursement from Medicaid and Medicare. A facility may

be dually certified, or only certified to receive reimbursement from either Medicaid or Medicare. The Medicaid program in Montana pays for approximately 62 percent of the total nursing home costs in the state and, as a result, all but one of the nursing home facilities in the state are certified to receive Medicaid reimbursement. One facility, St. Vincent Health Center in Billings, is Medicare-only certified. Two facilities, Sheridan Memorial Nursing Home in Plentywood and West Side Rest Home in Ronan, are Medicaid-only certified. The remaining facilities are dually certified.

Due to the sparse distribution of Montana's population, most of the nursing homes are relatively small. The average nursing home size is 70 beds. Four counties, Golden Valley, Judith Basin, Petroleum, and Treasure, do not have nursing home facilities. Table XIII-1 lists the number of nursing homes, the number of beds, the population over age 65, and the number of beds per 1,000 elderly per region.

Table XIII-1 Nursing Homes by Region				
Region	Number of Facilities	Number of Beds	Population 65 and older	Beds per 1,000 Elderly People
I	19	968	12,115	79.9
II	17	1,289	19,115	67.4
III	18	1,286	22,772	56.5
IV	21	1,558	25,283	61.6
V	21	1,490	27,184	54.8
Total	96	6,591	106,419	61.9
Source: HSR Analysis of Civic Consulting Data, 1994; Bureau of the Census, 1990				

a. Combined Nursing Homes and Hospitals

Statewide, 25 nursing homes are operated in conjunction with hospitals. These combination facilities can either be located in the same building as the hospital or located in a separate building, but administered by the hospital. Combination facilities are most frequently found in small, rural hospitals that have fewer than 30 inpatient beds and newly developed Medical Assistance Facilities (MAF). The combination of a nursing home and a

hospital in rural areas improves the financial viability of both facilities. These facilities have proven successful at ensuring that residents in sparsely populated counties have access to acute and long-term care services.

b. State-Operated Nursing Homes

The two state-run nursing home facilities in Montana are not included in the overall inventory because they are open only to special populations and, therefore, do not accurately reflect locally accessible community resources. These two facilities are Montana Center for the Aged (MCA) in Lewistown, and Montana Veterans' Home in Columbia Falls. MCA is a 191-bed, Medicaid-only certified nursing home that provides high-level nursing care to elderly patients who have a primary diagnosis of severe mental disorder. The Montana Veteran's Home is a 90-bed facility serving the long-term care needs of Montana's veterans.

2. Swing Beds

A number of hospitals within the state are eligible to "swing" beds from use in acute care to use by patients in need of long-term care. These hospitals must have fewer than 100 beds and an occupancy rate of less than 50 percent over a three year period. If both of these criteria are met, the hospital may convert up to half of its average empty acute care beds to swing beds. Swing beds can temporarily alleviate a local shortage in nursing home bed supply, and conversion to swing beds improves reimbursement for hospitals. However, this approach should only be used if there are patients with temporary nursing care needs or if there are waiting lists for area nursing homes. Table XIII-2 lists the number of swing beds by region and county.

Table XIII-2 Swing Beds by Region and County		
Region	County	Swing Beds
I	Custer	5
	Daniels	2
	Dawson	17
	Fallon	4
	McCone	2
	Richland	7
	Roosevelt	12
	Rosebud	8
	Sheridan	10
Total Region I		67
II	Chouteau	6
	Liberty	3
	Phillips	6
	Pondera	12
	Teton	4
	Toole	4
Total Region II		35
III	Big Horn	5
	Carbon	6
	Musselshell	5
	Stillwater	6
	Wheatland	6
Total Region III		28
IV	Beaverhead	10
	Granite	6
	Powell	6
Total Region IV		22
V	Flathead	8
	Lake	8
	Lincoln	8
	Mineral	3
	Ravalli	5
	Sanders	3
Total Region V		35
Total		187
Source: Montana DHES, Annual Survey of Hospitals, 1992		

C. DISCUSSION

To determine whether existing resources are meeting the long-term care needs of Montanans, the following criteria were examined:

- *Unmet Need.* Based on the use of existing facilities in the state, the 1993 Montana State Health Plan specified the number of long-term care beds needed to fulfill each community's current demand and expected future demand.
- *Distribution of Resources.* The disparate population concentrations within the state and the rural nature of the eastern part of Montana cause variations in the distribution of resources. Any determination of the adequacy of existing resources must ensure appropriate distribution of those resources within the state.

1. Unmet Need

The Montana state health plan employs a methodology for determining nursing home bed need¹ that is used in conjunction with other criteria to evaluate applications for the expansion of existing nursing homes or the establishment of new ones. Based on the need methodology, the 1993 Montana State Health Plan identified areas that needed additional nursing home beds. Table XIII-3 compares the projected need (according to the state health plan) with actual resources.

¹ Bed need formula for nursing home beds is projected as follows:

$$(\text{bed use rate}) / .85$$

The bed use rate is determined by dividing the three-year total patient days by the number of days in the three year period.

An occupancy factor of .85 is used to allow for reasonable growth over current use.

If the three-year average occupancy for nursing homes in a community is greater than 95 percent, five percent is added to the bed need projection (Montana State Health Plan, 1993).

Table XIII-3 Needed Nursing Home Beds by Region			
Region	Nursing Home Bed Need, According to 1993 State Health Plan	Actual Nursing Home Beds	Additional Nursing Home Beds Needed
I	1,075	968	107
II	1,393	1,289	104
III	1,383	1,286	97
IV	1,633	1,558	75
V	1,625	1,490	135
Total	7,109	6,591	518
Source: Montana State Health Plan, 1993; HSR analysis of Civic Consulting data			

This comparison reveals the need for additional nursing homes beds in each region within the state. Region IV has the smallest need--only 75 beds, and Region V has the greatest need--an additional 135 beds. This methodology has identified areas where existing resources are not meeting current demand for those resources, but it has been criticized for basing need projections on use rates of currently operating facilities. The reliance on this type of methodology results primarily from the inability to collect more detailed data on such things as population demographics and prevalence of injury or morbidity, which are better indicators of true need. As a result, the projections of unmet need made using this formula should not be accepted as an absolute statement of required resources. Instead, they should be considered in conjunction with other factors, including the availability of alternative services and bed-to-population ratios, to obtain a clearer picture of true need within the state and individual communities.

2. Distribution of Resources

Another indicator of the adequacy of nursing home resources is the bed to elderly population ratio. Not including the state nursing home facilities, Montana has an average of 61.9 nursing home beds per 1,000 elderly and an overall occupancy rate of 91 percent (Table XIII-1). Although the bed to population ratio compares favorably with the national average of 53.1 percent, these resources are not distributed equally throughout the state.

Region I has the largest bed to population ratio of 79.9, while Region V has the smallest at 54.8. This discrepancy is an important factor to be addressed.

While the bed-to-population ratio is important for revealing an unequal distribution of resources, it does not account for the availability of alternative long-term care services. The existence of alternative long-term care services, such as home health agencies and personal care facilities (discussed in Chapters Fourteen and Fifteen), should reduce the need for nursing home beds since many individuals who do not require the level of care provided by nursing homes can have their needs met through lower level of care arrangements. Both Regions I and II have a limited number of alternative services available, so there may be a greater reliance on nursing home care in these regions. This may explain the higher bed-to-population ratios. In addition, some alternative services -- such as personal care facilities -- do not receive Medicaid and Medicare reimbursement. Since almost 30 percent of people over age 65 in Regions I and II have incomes below the federal poverty level, the presence of alternative services in these areas does not guarantee access. However, Regions III and V--which have low bed to population ratios--also have a greater number of alternative services available and accessible to the elderly in these regions. Therefore, although the low bed-to-population ratio suggests a need for additional nursing home beds in these regions, the availability of alternative services may reduce that need.

Residents of four counties, Golden Valley, Judith Basin, Petroleum, and Treasure, do not have access to nursing home facilities within their county. Three of these counties are located in Region III and all but one, Judith Basin, have elderly populations of less than 200. With such small population bases, it is unlikely that these counties could support viable nursing homes. Furthermore, it appears that the needs of individuals within these counties are being adequately met by facilities in surrounding counties.

D. RECOMMENDATIONS

Based on our analysis of nursing home facilities and care and discussions with state officials in the Health Planning Program and the Medicaid Services Division, the following recommendations are offered regarding nursing home care in Montana:

- The development of cost-effective alternatives to long-term care should be encouraged.
- Significant increases in nursing home beds do not appear to be needed.
- A study of the effect of nursing home use on the availability of alternative sources of long-term care should be conducted. The results of this study should be incorporated into the methodology used by the state health plan for estimating the need for long-term care beds.

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CHAPTER FOURTEEN

COMMUNITY-BASED LONG-TERM CARE SERVICES

A. BACKGROUND

Community-based long-term care services provide health care to individuals, primarily the elderly, who need assistance with activities of daily living but do not require the level of care provided in nursing homes. In Montana, community-based facilities provide essential long-term care services to residents and prevent the inappropriate placement of individuals in nursing homes. These services are much less costly than nursing home services and are more suitable for individuals who need assistance with routine tasks such as eating, dressing, or grooming, but who do not need skilled nursing care. These individuals are best served in an environment that enables them to live as independently as possible while still ensuring that their basic needs are met. These services also enable patients to remain close to family and friends, which increases the availability of a support network, and improves the quality of life. While the availability of community services may not preclude the eventual placement in a nursing home, it will prolong the time these individuals can remain in their own communities.

Montana is promoting the development of these long-term care services to provide alternatives to nursing home care for individuals needing long-term care. Provision of care by community-based facilities fulfills one of the primary state goals for long-term care, identified by the Governor's Advisory Committee on Aging: the availability of a continuum of care to fit the needs of each individual client. This service includes personal care facilities, adult foster care homes, retirement homes, and adult day care.

While these facilities must be licensed to legally operate within the state, there is currently no mechanism for obtaining certification. In effect, this means the services provided by personal care facilities, adult foster care homes, and adult day care centers are not reimbursable by Medicare or Medicaid. Consequently, although alternatives to institutional care are available, they are only accessible to private pay patients. Two specific efforts to

expand these services are Medicaid's Home- and Community-Based Services waiver program and the efforts of the Governor-appointed Select Advisory Group on Independent Lifestyle (SAIL).

The Home- and Community-Based Services program, also known as the Medicaid waiver program, provides Medicaid funding for home- and community-based care for Medicaid-eligible individuals who would otherwise require nursing home care. Currently, the services included in the waiver are primarily home-based. However, additional money allocated to the program during the 1993 Legislative Session has been designated to expand the scope of services to include "assisted living" services in personal care homes and adult foster care homes. The funds will also be used to add services in counties not currently served by the waiver program and to offer services to 200 individuals on the waiting list. The projected implementation date for the expanded services is September 1995.

Additionally, the Department of Social and Rehabilitation Services (SRS) is in the process of developing a continuum of care for long-term care. The SAIL was appointed by the Governor in 1993 to provide input to the SRS as it defines a cost-effective range of services that satisfy an individual's preferences and treatment needs. The components of the enhanced system will include:

- A single point of entry;
- A comprehensive, computerized assessment tool to identify needed services and how those services will be paid for; and
- The expansion of residential options to include assisted living services in personal care facilities, adult foster care homes, and congregate apartment settings.

The development of a continuum of care is intended to limit the growth of state expenditures for long-term care. It will also provide choices to Montana residents as they age and will promote local planning of long-term care services.

B. INVENTORY

1. Personal Care Facilities

Personal care facilities provide care to five or more residents who need assistance with daily living activities but do not need skilled nursing care. A personal care facility must provide the following services:

- *Residential:* laundry, food service, and transportation;
- *Personal assistance:* assistance with eating, walking, dressing, grooming, and similar routine living tasks;
- *Recreational activities;* and
- *Supervision of self-medication.*

Although not established to provide skilled nursing care to individuals, personal care homes can be licensed to provide skilled nursing care for up to five patients. Personal care facilities can only provide skilled nursing care if a physician determines that the provision of care in a personal care facility is appropriate to meet the needs of the patient.

Currently, there are 27 licensed personal care facilities in Montana, ranging in size from 5 to 82 beds. The majority of the personal care homes in Montana are freestanding and privately owned; however, a few are affiliated with nursing homes or hospitals. It should be noted that personal care homes are no longer regulated through the CON process. Table XIV-1 lists the number of personal care beds by region and the bed to elderly population ratios.

Table XIV-1 Personal Care Beds by Region		
Region	Number of Personal Care Beds	Number Personal Care Beds Per 1,000 Elderly People
I	26	2.1
II	120	6.3
III	105	4.6
IV	116	4.6
V	219	8.1
Total	586	5.5
Source: HSR analysis of Civic Consulting Data, 1994		

The overall bed to elderly population ratio is 5.5; however, personal care beds are unevenly distributed throughout the state. While Region V has a ratio of 8.1 beds per 1,000 elderly, Region I only has 2.1 beds available per 1,000 elderly people.

In addition to the licensed personal care facilities, there are a number of facilities that are providing personal care services but are currently unlicensed. It is impossible to estimate how many unlicensed facilities are currently operating in the state or how many people are being served in them.

2. Adult Foster Care

An adult foster care home is a privately owned home in which four or fewer disabled or elderly individuals can receive personal care or custodial care. For those individuals requiring personal care, the services required for personal care homes must be provided. Custodial care is defined as providing a sheltered, family-type setting for an elderly or disabled adult to ensure that the basic needs of food and shelter are met. The primary distinctions between personal care facilities and adult foster care homes lie in the number of residents. Personal care facilities serve five or more residents, while adult foster care homes serve four or fewer. By providing care in the setting where residents live, adult foster care homes are extensions of the family; on the other hand personal care facilities,

especially the larger ones, are more institutional. Additionally, adult foster care homes are not licensed to provide any type of skilled nursing care. A resident may contract with a home health agency for the provision of nursing care, but the facility may not contract with an agency on behalf of a resident.

There are 120 adult foster care homes throughout the state with the cumulative capacity of serving up to 304 individuals. Table XIV-2 lists the number of adult foster care homes and the number of people served by region.

Table XIV-2 Adult Foster Care Homes by Region		
Region	Number of Adult Foster Care Homes	Number of People Served
I	10	18
II	6	11
III	47	133
IV	21	53
V	36	89
Total	120	304
Source: HSR analysis of Civic Consulting Data, 1994		

Most adult foster care homes in Montana are located in larger cities where there is access to additional resources, such as hospitals and home health agencies, if they are needed. Region II has the fewest adult foster care homes with only 6 while Region III has the most with 47.

3. Retirement Homes

A retirement home is a facility where residents sleep in individuals rooms, but eat meals, usually provided by the home, in a central area. Unless specifically licensed to operate as both a personal care facility and a retirement home, these facilities may not provide professional nursing care or personal care services. However, a resident may contract with

an agency to have those services provided. Some of the larger retirement homes in the state have obtained a license to operate as a retirement home with certain units designated as personal care facilities. This dual licensure enables the facility to care for aging residents as their health declines and protects against the necessity of moving these residents to other facilities, which can prove traumatic and lead to a further and more rapid decline in health.

There are 25 retirement homes operating in Montana and they range in size from under ten units to 200 units. These homes serve approximately 1,600 elderly Montana residents.

4. Adult Day Care

An adult day care facility, which may be either freestanding or connected to a hospital or nursing home, provides intermittent care necessary to meet the needs of daily living. Adult day care facilities provide care during the day and are intended to facilitate the care of the elderly and disabled adults within their homes by family caregivers. If affiliated with a hospital, nursing home, or personal care facility (all of which have licenses to care for individuals on a 24-hour basis), an adult day care center may arrange to place an individual in an unoccupied bed for one or two days to provide respite care for the primary caretakers.

There are 24 adult day care centers in Montana serving approximately 54 elderly people. Although adult day care services are available in each region, many communities do not have access to the service. A number of adult day care centers, although licensed to provide services, are not currently serving clients. This condition results in the relatively low number of elderly served per adult day care center.

C. DISCUSSION

It is difficult to determine the true need for community-based long-term care services. Except for personal care facilities, the state has not established need determinations for

these facilities. To promote low-cost alternatives to nursing home care, however, the state has encouraged their general expansion. In an attempt to develop a more coordinated long-term care system the Department of Family Services, Office on Aging has encouraged local agencies to identify gaps in the current services provided. These agencies suggest that adult day care services are in need of further development. In addition, the Office on Aging is encouraging counties to develop plans for long-term care services to ensure a more equalized distribution of these services across counties and regions and to tailor services to meet the specific needs of county residents.

According to the state health plan, additional personal care facilities are needed throughout the state. Based on national data and input from providers, the state health plan indicates that 20 personal care beds per 1,000 elderly are necessary to adequately serve the needs of Montana's elderly population. Comparing this guideline with the actual number of licensed personal care beds in Montana reveals a clear need for additional beds. Region V, which has the highest bed to population ratio, has only 8.1 beds per 1,000 elderly; Region I, which has the lowest bed to population ratio, has only 2.1 beds per 1,000 elderly. Statewide, the bed to elderly population ratio is 5.5. To achieve the guideline established by the state health plan, the state would need an additional 1,542 personal care beds. It should be noted that state health plan goals are usually tied to the CON process. As of July 1, 1994, personal care facilities are no longer subject to CON review.

However, two factors suggest that this number may be too high: the existence both of facilities providing similar care and unlicensed facilities, and the low occupancy rates in operating facilities. Although licensed separately, adult foster care homes provide the same level of care as personal care facilities. If these beds are added to the personal care beds, the need drops to 1,238 new beds. In addition, the inventory of personal care beds reflects only licensed beds, although a number of facilities are unlicensed. Although these unlicensed facilities may fill in some of the gaps in service, it is impossible to determine to what extent since there is no record of how many of these facilities are currently in operation. Finally, the need for these facilities may not be as great as indicated by the state health plan because personal care facilities in the state have an overall occupancy rate

of 67 percent. This relatively low occupancy rate implies that a number of existing beds are not being used.

There is a clear need for community-based services. However, there is also a problem with the potential to provide a higher level of care than is allowed under the licensure rules. As patients age, their health declines and eventually they require either personal care services or nursing care services, which often cannot be provided by the home in which they are living. But even when residents recognize the need for care, they are reluctant to move into a new facility. As a result, operators of the existing facilities may supply care which they are not qualified to provide. Many residents feel that the care they are receiving is adequate whether or not it is legally provided. In an attempt to address this problem, an initiative is currently being discussed which would redefine these facilities as residential facilities, with the concomitant development of specific rules and regulations governing licensure and certification.

D. RECOMMENDATIONS

Based on the review of the resources and discussions with state officials in the Department of Health and Environmental Sciences and in the Medicaid Services Division, the following are recommendations for future development of community-based long-term care services:

- Continue expansion of the Home and Community-Based waiver program to promote access by Montana's low-income elderly population.
- Further develop and implement a continuum of care plan for long-term care services, including community-based services.
- In counties where occupancy rates of personal care facilities are high or where services are not available, encourage the expansion of existing facilities or the establishment of new facilities.
- Promote the increased utilization of existing adult day care centers along with the development of more centers.

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CHAPTER FIFTEEN

HOME HEALTH AGENCIES

A. BACKGROUND

Concern with rising inpatient costs has brought attention to home health agencies which provide skilled care to individuals, primarily the elderly, in their homes. This attention has been spurred by insurers, particularly Medicare, who have placed pressure on hospitals to keep hospital stays to a minimum. A physician may refer a hospital patient to a home health agency when the skilled care required by the patient is not enough to justify the expense of staying in a hospital for an extended period. A patient who wishes to avoid hospitalization for reasons of cost or comfort may also elect to receive home health care. Services offered through home health agencies generally include skilled medical and therapeutic care such as skilled nursing, physical therapy, and the services of a home health aide.

There are 48 licensed home health agencies in Montana serving all but nine counties. All of these agencies except one are certified and receive Medicare and Medicaid reimbursement. The agencies must follow a series of steps in order to receive this reimbursement: certificate of need (CON) approval, licensing, and certification.

1. Certificate of Need

Obtaining (CON) is the first step an agency must take to receive certification. The agency must apply to the Health Services Division of the Department of Health and Environmental Sciences for CON. The CON review considers a number of factors in determining whether to approve or disapprove an application, including ability to provide county-wide service, financial viability, adherence to the State Health Plan need formula, and special county considerations.

2. Licensing

After an agency receives CON approval, it must apply to the Health Facilities Division of the Department of Health and Environmental Sciences for a license. The application is sent to the Licensure Bureau where a nurse reviews the policies and procedures of the agency, as well as the services offered. To receive a license, an agency must offer the skilled services of a registered nurse. Examples of such care include treatment counseling and insertion of intravenous lines. Nurses may also offer unskilled services such as filling pill boxes or helping patients get dressed, but these services are considered supplemental.

In addition to the services of a registered nurse, an agency is required to offer at least one other skilled or therapeutic service. Physical therapy, speech therapy, occupational therapy, infusion therapy,¹ services provided by a medical social worker, and those provided by a home health aide are examples of additional services that can be provided. If the policies, procedures, and services offered by a home health agency are approved by the Health Facilities Division, the agency is granted a one year license. License renewal occurs every three years, after the initial one-year license, and requires a written application and a nominal fee.

3. Certification

After receiving a license, agencies are allowed to accept patients but they can not receive Medicare or Medicaid reimbursement until they become certified. Certification requires an on-site evaluation by a nurse who determines if the procedures specified in the application are followed and whether the service outlined in the licensing application are being offered. The administrative side of the agency is also evaluated during the on-site visit. An agency must establish a patient base before it can apply for certification through the Certification Bureau of the Health Facilities Division. This application is usually submitted a few months after receipt of licensure. If the agency is approved, certification is granted and

¹ There is one facility which is licensed specifically to perform infusion therapy. However, it is not licensed or certified as a home health agency.

Medicare and Medicaid reimbursement can be received. Most licensed agencies become certified.² Annual on-site visits are conducted for renewal of certification.

4. Unlicensed Home-based Services

In addition to licensed and certified home health agencies, additional home-based services are offered by unregulated agencies and individuals. Since these services are not monitored by the state or federal government, individuals providing this care are not required to offer a skilled component to their services and thus cannot receive Medicare or Medicaid reimbursement. Unskilled care is provided either through a certified home health agency³ or through uncertified agencies or individuals.

Providers of home-based services who do not receive Medicare and Medicaid reimbursement are not regulated by any state or federal agency. Therefore, no mechanism exists to evaluate the quality of care provided by unlicensed providers. This lack of monitoring and quality control raises concerns about the quality of care which is provided by individuals offering unlicensed home-based services.

B. INVENTORY

Home health agencies are certified to operate in one or multiple counties and can serve different counties across regional boundaries. In addition, as long as home health agencies meet the State Health Plan need formula, multiple agencies can serve one county. Therefore, there is a diversity in the number of counties served by a home health agency and in the number of agencies that serve a county or region.

- *Number of Home Health Agencies.* According to the annual survey of home health agencies in Montana, there were 48 home health agencies in 1993. There regional

² Dawson County Home Health is the only home health agency which is licensed but not certified.

³Some certified home health agencies provide unskilled care for private reimbursement.

distribution is shown in Table XV-1. Some of these agencies serve multiple counties.

Table XV-1 Number of Home Health Agencies, 1994	
Region	Number of Home Health Agencies ⁴
I	10
II	9
III	6
IV	14
V	9
Source: Montana Department of Health and Environmental Sciences, licensing data, 1994.	

- *Counties Served by Home Health Agencies.* Forty-seven counties were served by at least one home health agency in 1993. Of these, 29 were served by a single agency and 18 were served by multiple agencies. Nine counties were not served by any agency: Carter, Garfield, McCone, Powder River, Prairie, Rosebud, and Treasure in Region I, and Petroleum in Region III (Table XV-2).

Table XV-2 Counties Served by Home Health Agencies, 1993			
Region	Number of Counties Not Served by Home Health Agencies	Number of Counties Served by One Home Health Agency	Number of Counties Served by Multiple Home Health Agencies
I	8	6	2
II	0	6	4
III	1	7	3
IV	0	6	6
V	0	4	3
Total	9	29	18
Source: Montana Department of Health and Environmental Sciences, Annual Survey of Home Health Agencies, 1993			

⁴ The regional totals of home health agencies do not add to the statewide total of 48 since there are two home health agencies that operate in two different regions. Thus, these two home health agencies are included in the totals for two different regions. All other home health agencies operate within one region.

- **Number of People Served.** A total of 8,738 individuals were served by home health agencies in 1993. There were significant regional differences in the number of individuals served by a home health agency per thousand individuals over the age of 65 (service rate). While 54 individuals per 1,000 and 64 individuals per 1,000 over age 65 were served in Region I and Region II, respectively, Regions III, IV and V each served approximately 100 individuals per 1,000 individuals over age 65 years (Table XV-3).

Table XV-3 Number of Individuals Served per Region, 1993		
Region	Number of Individuals Served	
	Total	Per 1,000 Individuals Aged 65 or Older (Service Rate)
I	651	54
II	1,224	64
III	2,313	102
IV	2,484	98
V	2,717	100
Total	9,389	88
Source: Montana Department of Health and Environmental Sciences, Annual Survey of Home Health Agencies, 1993		

C. DISCUSSION

To determine whether licensed and certified home health agencies are meeting the needs of the population, the following criteria were examined:

- Distribution of resources; and
- Unmet need per region.

1. Distribution of Resources

Regional and county-wide variation in resources is of concern since the eastern part of Montana is more rural than the rest of the state and often has a deficiency of resources. Any assessment of state resources must examine whether there is a disparity in the accessibility of services offered in counties and regions of the state.

An examination of home health agencies by county offers a clear picture of the distribution and deficiencies of resources. While most counties have at least one home health agency, nine counties are not served by any agency. Eight of these nine counties are in Region I and thus half of all Region I counties do not have access to a home health agency (Table XV-2).

In addition, the regional variation in the number of individuals served per 1,000 individuals over the age of 65 (service rate) indicates significant differences in the adequacy of resources across regions. The service rate in Region I is less than one-half that of Region III, IV and V. Region II's rate, at 64, is also much lower than the rates in Regions III, IV, and V which are 102, 98, and 100 respectively (Table XV-3).

2. Unmet Need

The State Health Plan outlines a formula to determine unmet need by assessing the number of individuals who are unserved by a home health agency or could not be served if they wanted to be⁵. The formula first calculates the number of these potential home health agency users and then subtracts the number of actual users to determine unmet need. According the State Health Plan unmet need formula, the total unmet need in Montana is 2,955 individuals (Table XV-4). The largest unmet need is found in Regions I and II. Since half the counties in Region I are not served by a home health agency, the large unmet need in this region is not surprising. However, Region II has the largest unmet need despite the fact that every county is served by a home health agency.

⁵ The State Health Plan determines unmet need by multiplying the number of individuals 65 and older by .116 (potential users) and then subtracting actual users from these potential users. The plan states that on a county-wide level, unmet need should not exceed 75. A home health agency applying for CON approval in a county with two or more agencies will only receive this approval if the unmet need is more than 75.

Table XV-4
Number of Individuals Served by a Home Health Agency, the Number of Individuals 65 and Older, The Potential Users of Home Health Agencies, and Unmet Need, by Region

Region	Population 65 and older, 1990 ⁶	Total Number of People Served (actual users), 1993	Potential Users	Unmet Need
I	12,115	651	1,405	754
II	19,115	1,224	2,217	993
III	22,722	2,313	2,636	323
IV	25,283	2,484	2,933	449
V	27,184	2,717	3,153	436
Total	106,419	9,389	12,344	2,955

Source: Montana Department of Health and Environmental Sciences, Annual Survey of Home Health Agencies, 1993

The existence of unregulated agencies and individuals who deliver home-based services skews the extent to which the unmet need numbers accurately reflect the availability of services in a region. Since records are not kept on the numbers of unregulated agencies and individuals, these agencies are not considered in the State Health Plan needs formula. Thus, while all regions indicate need, it is possible that the deficiencies are being met by private agencies. However, unlicensed agencies and individuals would be less likely to fill deficiencies in skilled services than in unskilled services, since they are not required to fulfill the more stringent requirements of a certified agency. Given the dearth of data on private agencies, it is unclear how their existence affects the actual need in a region.

⁶ 1990 population statistics are the most current statistics available. Since population growth in Montana was fairly stable between 1990 and 1993, the use of 1990 population numbers with 1993 actual user numbers will not affect the calculated unmet need in most counties. However, five counties did experience significant population growth between these years. These counties are Flathead, Gallatin, Lake, Missoula and Ravalli. Since four of these counties are in Region V, the unmet need calculated for this region may not accurately reflect the actual 1993 unmet need.

D. RECOMMENDATIONS

Based on an examination of the resources, and discussions with State officials and health care providers, we recommend the following:

- Efforts to address unmet need should be made. Unmet need is of particular concern in Region I, since eight of its sixteen counties were not served by a home health agency in 1993. There must be greater efforts to increase the number of counties served in this region by the development of new home health agencies or by increasing the service areas of existing home health agencies.
- Efforts to monitor unlicensed home health agencies should be made. Since unlicensed, uncertified individuals and agencies provide home-based services to privately insured individuals or private pay individuals, efforts should be made to monitor these agencies to ensure the delivery of quality care.

Sources

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CHAPTER SIXTEEN

HOSPICE CARE

A. BACKGROUND

Hospice care is the physical and emotional support provided to terminally ill patients and their families. This care can be offered either in a patient's residence or in an institution, such as a wing of a hospital. However, in Montana there are currently no institutional hospice programs, although one is being developed by the Saint Patrick Hospital in Missoula. The home-based hospice programs in Montana provide physical, psychological, spiritual, and social support through the services of a "care team"-- a social worker, a nurse, a primary physician, and a spiritual counselor who develop a care plan for the patient and decide what services should be offered. Since hospice programs, unlike home health agencies, offer "unskilled" services such as emotional support, they often rely on the services of volunteers. The care team and volunteers offer their services not only to patients, but to families as well, providing respite care to family members who need a short break from the role of care giver, and bereavement counseling after the death of a family member. Hospice programs can be licensed or licensed and certified.

Hospices, unlike home health agencies, do not need to receive CON approval to become licensed or certified. However, there are specific criteria that must be met for certification or licensing. Requirements for certification are more stringent and therefore many hospices are only licensed, not certified. Licensed agencies receive private insurance and donations, while certified hospices can receive both Medicare and Medicaid reimbursement as well.

Licensed and certified hospices offer some of the same services despite differences in financing. Both are required to provide a core group of services consisting of the services delivered by a licensed nurse, a physician, a social worker, and a pastoral counselor. In addition, both licensed and certified hospices must offer bereavement counseling to families

and care must be available on a 24-hour basis. Despite these similarities, there are differences which stem from the more stringent requirements for certification. These differences are as follows:

- *Certification Requires Specific Academic Credentials of Providers.* While both licensed and certified hospices require the same core services, the criteria used for the providers of these services are often different. For example, both licensed and certified hospices are required to include the services of a social worker. However, under the requirements for certification, social workers are required to hold an undergraduate or master's degree in social work from an accredited school. Under licensing, completion of a degree program in a non-accredited school is acceptable, as is appropriate experience in the field. In addition, while a home health aid in a certified hospice must be certified to provide personal care, a non-certified individual can provide such care in a licensed hospice.
- *Certification Requires A More Extensive Group of Services.* In addition to the services offered by the core care team, certified hospices are required to offer (either directly or on a contract basis) the following services: physical therapy, occupational therapy, speech therapy, and the services of a home health aide. These services are not required for licensed hospices.
- *Certification Requirements Do Not Allow Subcontracting of Core Services.* Certified hospices must provide core services directly and are not allowed to contract with a hospital, home health agency, or nursing home. However, a licensed agency is allowed to provide core services on a contract basis.

B. INVENTORY

There are 19 licensed and/or certified hospices in Montana. Fourteen of these hospices are both licensed and certified and five are licensed only. Region IV has a total of seven hospices, compared to four in Region V, five in Region III, two in Region II, and one in Region I (Table XVI-1). There is no official statewide survey that assesses the number of individuals served by hospices.

Table XVI-1 Number of Hospices by Region			
	Number of Hospices		
Region	Total	Certified and Licensed Hospices	Licensed Only Hospices
I	1	1	0
II	2	2	0
III	5	3	2
IV	7	5	2
V	4	3	1
Total	19	14	5
Source: The Montana Hospice Organization, 1994			

C. DISCUSSION

There are no state standards or need formula to assess adequacy of hospices. Therefore, it is difficult to determine how many hospices each region should have or how many individuals should be served. This determination is made more difficult by the fact that different levels of services are delivered to individuals depending on whether they are served by a licensed or certified hospice. A need formula could not account for the differences in services delivered, and thus it would not reflect the fact that two hospices do not necessarily deliver equivalent or comparable services. A formula, therefore, could not accurately determine what needs were and were not being met within each region.

However, it is clear that the adequacy of resources is an issue in the eastern part of the state since Region I has only one hospice and Region II has only two. Even in regions where several hospices exist, the more rural areas of the region experience deficiencies since hospices are not required to offer county-wide services. They can thus elect not to serve individuals in rural areas that are distant and difficult to access.

D. RECOMMENDATIONS

Based upon review of the data available and discussions with state officials and hospice industry representatives, the following recommendations are offered:

- Support of current efforts to integrate smaller hospices with larger ones should be made. There is currently an attempt to link smaller, uncertified hospices to larger, certified ones. Through this integration smaller hospices would receive the services offered by larger, often more urban, hospices. For example, a small hospice in a rural area could not, on its own, provide the services of an occupational therapist or physical therapist. However, as an affiliated, "alternative" site it would be able to offer its patients the more comprehensive services of the larger "parent" hospice, and thus be able to receive certification. This measure is intended to increase the accessibility of comprehensive hospice care and encourage the establishment of additional rural hospices with the incentive of public reimbursement. There are currently four such alternative sites.
- Support of efforts to create additional certified hospices should be made. A grant from the National Hospice Association was given to the Montana Hospital Organization to teach individuals how to establish a certifiable hospice. Educational workshops were held in Browning, Ennis, Havre, Polson, and Sidney.

Sources

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CHAPTER SEVENTEEN

MENTAL HEALTH SERVICES

A. BACKGROUND

The public and private sectors in Montana are active in providing mental health care to children and adults who suffer from varying degrees of mental illness. The public mental health system in Montana delivers services through two state operated mental institutions and a network of Community Mental Health Centers (CMHCs). The private mental health delivery system comprises independent private practitioners, psychiatric units in community hospitals, and other private residential treatment facilities.

It is estimated that the state of Montana has 6,201 adults with Severe and Disabling Mental Illnesses (SDMI) who often require intensive long term care. There are also an estimated 6,000 children in Montana with Severe Emotional Disturbance (SED) (Montana Mental Health Division, 1993). In addition to these special populations, approximately 25,500 children suffer from less severe, emotional disorders, and many other adults require short-term care for less severe disorders, including those arising from such personal traumas as death, divorce, or violence (Montana Mental Health Division, 1992). In Montana's combined public and private mental health care system, the public sector funds and services are targeted at the two populations with the greatest need, adults with SDMI and children with SED.

Historically, the responsibility to care for adults and youth with severe mental illness has been met by large state mental institutions and the inpatient psychiatric units of community hospitals or free-standing facilities. The nationwide lack of a continuum of community services, combined with an "out-of-sight, out-of-mind" attitude, is the reason commonly identified for the overuse of state mental hospitals and private inpatient and residential psychiatric facilities during the 1960's, 1970's and 1980's. As a result of this overuse, many clients received inappropriate and unnecessarily restrictive care.

In recent years, however, the nation as a whole has become more sensitive to the civil liberties of the mentally ill. During the late 1980's, Montana responded to this trend by revising the philosophy that guides the state's delivery of mental health care services. The new philosophy asserts that "each client should be treated in the least intensive or restrictive setting consistent with the clients' clinical needs and that these services should be provided in the local community as close as possible to the home of the client" (Surdock, 1994).

In this chapter we will inventory the ways the public mental health system is responding to this new philosophy. We will also inventory the mental health services available in the private sector.

B. INVENTORY

1. Public Services for Adults with Severe and Disabling Mental Illness

The new philosophy of public mental health services favors the use of less intensive, short stay services when appropriate instead of hospitalization. Although inpatient psychiatric care is essential for some clients, it is often the most expensive component of mental health care. Evidence indicates that for many patients less costly alternatives are as effective as inpatient treatment (Montana Department of Health and Environmental Sciences, 1993). The Mental Health Division (MHD) of the Department of Corrections and Human Services (DCHS) is the organizational entity responsible for delivery of public mental health services in Montana. In considering patient's care and costs, the MHD has dedicated itself to developing and expanding the availability of less intensive, less restrictive community based services.

a. State Operated Mental Facilities

The MHD operates two state mental facilities that serve the traditional function of providing residential services to seriously mentally ill Montana residents (Table XVII-1). The Montana State Hospital (MSH) at Warm Springs provides inpatient psychiatric treatment for mentally ill adults who cannot effectively be served within the existing

community mental health system. The Montana Center for the Aged provides nursing care for older Montana residents who need more intensive mental health services than can be found in a nursing home. It does not, however, provide acute inpatient care. As the MHD develops a more adequate system of community based alternatives, the MSH will only provide treatment of acute episodes that could not be stabilized through short term community based programs and extended inpatient services due to chronic behavior that is dangerous to the patient and others. This new role is intended to reduce the number of patients and admissions to MSH.

Table XVII-1 State Operated Mental Facilities		
Facility Name	Location	Licensed Beds
Montana State Hospital	Warm Springs	284
Center for the Aged	Lewiston	191
Source: Montana State Hospital and Center for the Aged, 1994		

Services and monetary assistance provided by the state mental health system are targeted toward adults with SDMI. The DCHS has defined an adult with SDMI as an individual over the age of 18 who has (1) been hospitalized for at least 30 days at MSH because of mental illness or (2) has a diagnosable mental disorder which causes the individual to have ongoing difficulty functioning in daily life. In addition to the residential services provided by the state at MSH and Center for the Aged, the MHD provides community based services for adults through CMHCs.

b. Community Mental Health Centers

It is through Montana's existing system of five regional CMHCs that the MHD plans to enhance and expand community based public mental health services. CMHCs are established by state law as private non-profit organizations. Virtually all of the Department's community mental health funds are distributed under contractual arrangements to Montana's five regional CMHCs, which receive substantial additional financial support from Medicaid, client fees, private insurance, county contributions, and

services purchased by other state agencies. To be licensed by the DCHS as a CMHC the entity must provide at least the following services:

- Outpatient services;
- 24-hour emergency care services;
- Day treatment, partial hospitalization service, and psychosocial rehabilitation services;
- Screening to determine the appropriateness of a patients admission to MSH; and
- Consultation and education in mental health.

CMHCs provide these services to a multi-county region. Each region has a central administrative and clinical office. Services are delivered at the central facility and at full and part-time satellite offices in various communities throughout the region. Table XVII-2 identifies the CMHC serving each region and is followed by a comprehensive list of the services they currently provide.

Table XVII-2 Community Mental Health Centers by Region		
Community Mental Health Center	Region	Central Office Location
Eastern Montana Community Mental Health Center	I	Miles City
Golden Triangle Community Mental Health Center	II	Great Falls
Mental Health Center	III	Billings
Mental Health Services, Inc.	IV	Helena
Western Montana Community Mental Health Center	V	Missoula
Source: Montana Public Mental Health System, Revised State Plan: Fiscal Years 1992-1994, 1992		

c. Services Provided by CMHCs

- *Outpatient counseling* consists of individual and group counseling services provided by a licensed professional counselor or psychologist on an outpatient basis.
- *Day treatment* is a psychotherapeutic educational service that is provided on an outpatient basis. Specific services include social skill development, stress management, job training, counseling, and recreational activities.
- *Emergency services* consist of 24-hour emergency telephone response service. Staff is available to refer those in crisis to the service most appropriate for their need for example, an on-call therapist, a police official, or a suicide hotline. The staff, however, is not necessarily trained to deal with the crisis personally and cannot travel to the person in crisis.
- *Transitional residential* is a psychotherapeutic service provided in a residential group home setting. Each home consists of no more than eight residents who are supervised on a 24-hour basis. Conceptually, the transitional residential service is intended to help patients make the transition from inpatient psychiatric care to independent community living. As such, transitional residential is meant to be a short term service; in reality, it has become a long-term service for many clients.
- *Crisis residential* is one of the crisis intervention services provided by CMHCs. Crisis intervention refers to the services provided by a full-time staff with the training to respond to psychiatric crises 24-hours a day. This includes 24-hour emergency telephone response, mobile outreach, walk-in services, and residential services. Specifically, crisis residential refers to the service provided in a non-hospital setting (e.g., an apartment or a house) for those in need of short term residential crisis treatment. The development of additional non-hospital crisis beds in CMHCs will fill some of the need for local 24-hour care for those communities that cannot financially support an inpatient psychiatric facility.
- *Medication monitorization* is a service that includes the prescription and monitoring of psychotropic medication and the review of a client's medication treatment plan.
- *Intensive case management* is a range of services designed to provide the client with access to housing, education, and clinical treatment, as well as vocational, financial, medical, and other support services that the client requires for successful community living. These services are provided by case managers who provide only case management services and handle a caseload of up to 20 clients.
- *Supportive case management* is provided by a case manager who handles a case load of 20 to 40 clients and, as a result, cannot offer as extensive a set of services as does intensive case management.

- *Supported housing* is a group of flexible, individualized, and continuous support services that enable a client to live independently in permanent housing. Such support services may include locating suitable housing, assisting in lease signing, and intervening with landlords on behalf of the client.
- *Supported employment* is a group of services provided by CMHCs in conjunction with the Vocational Rehabilitation Division which allow clients to work in normal settings for normal wages by providing flexible, individual, ongoing support. The Vocational Rehabilitation Division is responsible for the initial placement and training of the client in a new job while the CMHC monitors the client's job performance.

Table XVII-3 sets out the services that are available in each regional CMHC. While all the services indicated are available within a given region, they are not all available or easily accessible to every community in that region.

Table XVII-3 Mental Health Services Provided by Regional CMHCs					
Services Provided	Region I	Region II	Region III	Region IV	Region V
Outpatient Counseling	X	X	X	X	X
Day Treatment	X	X	X	X	X
Emergency Services	X	X	X	X	X
Transitional Residential	X	X	X	None	X
Crisis Residential	None	None	X	X	X
Medication Management	X	X	X	X	X
Intensive Case Management	X	X	X	X	X
Supportive Case Management	X	X	X	X	X
Supported Housing	None	None	None	X	X
Supported Employment - Voc Rehab Division	None	X	None	X	X
Supported Employment - Extended Services	X	X	X	X	X
Source: Montana Public Mental Health System, Revised State Plan: Fiscal Years 1992-1994, 1992					

To achieve its goal of providing appropriate care in the least restrictive setting, the MHD has identified several services in particular that need to be developed and expanded. Such services include intensive case management, crisis intervention, and supported employment. In addition to these services, pre-admission screening¹ and psychiatric services have also been identified as areas in need of development.

In a rural state, such as Montana, many people with mental illness do not have access to a psychiatrist. The MHD reports that there are currently only five full-time psychiatrists employed by CMHCs. The CMHCs located in Regions I and IV do not employ a psychiatrist at all. Consequently, medication management, ideally supervised by psychiatrists, is often supervised by primary care physicians contracted by CMHCs. Additionally, without a psychiatrist on its staff, CMHC clients have difficulty accessing inpatient psychiatric care even if a community hospital with an inpatient psychiatric unit is located in their region.

2. Public Services for Children with Severe Emotional Disturbance

The needs of all children with emotional disturbances cannot be met by the public mental health system. The state of Montana has responded to their needs in two ways. First, resources are being targeted to address children and families with the greatest medical need. The DCHS determined the population most in need to be children with Severe Emotional Disturbance (SED) - - individuals 17 years of age or younger who (1) present a danger of suicide or (2) demonstrate a need, due to emotional disturbance, for specialized services from two or more human service programs and have a diagnosable mental disorder characterized by consistent and persistent dysfunctional behavior. Second, in 1993, the Montana State Legislature authorized DCHS to develop a managed care approach for the delivery of mental health services to children with SED. The legislature further instructed

¹ At present, state law requires all those voluntarily committed to Montana State Hospital at Warm Springs to undergo pre-admission screening by a CMHC to verify that there are no facilities at the regional level capable of providing more appropriate treatment. Currently, however, there is no law requiring pre-admission screening of those being involuntarily committed (committed by court order) to MSH. A proposal for such a law is being considered to ensure that the individuals being committed by the court to MSH are only those with severe mental illness or dangerous behavior which represents a threat to others.

the managed care system to employ child-centered, family-focussed community-based services which are intended to function as alternatives to traditional inpatient psychiatric and residential care. The result of the legislature's mandate is a program called Managing Resources Montana (MRM), which was implemented July 1, 1993.

MRM is a managed care mental health service system providing public assistance for children with SED and their families. Parents' ability to pay is evaluated on a sliding scale and patients are billed for the appropriate level of service. MRM, however, is not an entitlement program; service is dependent on the availability of public funds, even if the child is eligible. If a child applies to the program but does not meet the SED definition, the child is referred to community resources for service when appropriate.

MRM uses the infrastructure of the CMHCs and contracts with other mental health care facilities to deliver its services. Availability of MRM services differs by region, depending on the needs of the children in its area and the ability of communities to support a particular program or facility. The following is a description of the services potentially available through the MRM program. While these services are generally available within every region, with the exception of sex offender treatment, they are not all available or easily accessible in every community within a given region.

- *Individual, group, and family therapy* consists of counseling provided by a certified mental health professional on an outpatient basis.
- *Respite* is a short term service provided to children who are unable to care for themselves. The service is provided in the child's home or in a state- approved facility.
- *Case management* includes such services as locating, coordinating, and monitoring the mental health services needed by a client.
- *Therapeutic group care* is a psychotherapeutic service provided by the trained staff of a therapeutic group home licensed by the Department of Family Services.
- *Therapeutic foster care* is a psychotherapeutic service provided by foster parents who are trained to be primary therapists in a family home licensed by the Department of Family Services.

- *Emergency medication* is the provision of psychotropic medication under the supervision of a psychiatrist.
- *Parent support* is supplemental services for parents that may include parent support groups, aids to assist the parents in the care for a child with SED in the home, and after school supervision programs.
- *Wrap around services* is a group of specific services provided to the child and his/her family which enables the child to remain in the home.
- *Day treatment* is a community based psychotherapeutic educational service offered as a joint program by the CMHCs and the local school district.
- *Evaluation and assessment* determines if a child is SED and qualifies for MRM resources and if so, determines the appropriate services needed.
- *Psychotherapeutic consultation* is an outpatient service provided by a psychiatrist and includes psychotropic medication evaluation when necessary.
- *Home based service* is a short term intensive service provided to families with a child with SED who is at risk of removal from the family because of his/her behavior.
- *Sex offender treatment* is an outpatient therapy designed to address the needs of a child with SED and offending sexual behavior.
- *Chemical dependency counseling* is an outpatient service directed at the elimination or reduction of the drug or alcohol dependency of a youth.

In addition to the MRM program, there is currently an initiative in progress to place adults receiving either Medicaid or public financial assistance for mental health services under a managed care system. In 1993, the state legislature authorized the Department of Social and Rehabilitation Services to develop a managed care system for Medicaid-funded mental health care. The SRS, in conjunction with the DCHS, determined that those adults receiving public financial assistance from the DCHS should be integrated with the Medicaid population under a capitated managed care program. The program is currently under development and is scheduled to be implemented on June 1, 1995.

3. Private Services for Adults and Children with Severe Mental Illness

Although the state-supported mental health system, which targets adults and children with severe mental illnesses, is the primary provider of the community based services necessary to treat these special populations, there are private entities that provide additional inpatient, residential, and outpatient treatment to adults and children who suffer from varying degrees of mental illness.

- *Free standing and hospital inpatient psychiatric units* provide acute inpatient psychiatric care to children and adults. This care consists of psychiatric treatment for individuals with mental illnesses that cannot be treated in outpatient or less restrictive facilities. Table XVII.4 lists the facilities in Montana that provide acute inpatient psychiatric care for individuals of varying ages.
- *Residential treatment facilities for children* provide residential psychiatric care to children. This care involves active psychiatric treatment provided in a residential facility for persons under 21 who are psychiatrically impaired and require a 24-hour supervised care. Table XVII-5 lists the facilities in Montana that provide these services to children.

Although the facilities listed in Tables XVII-4 and XVII-5 are not managed by the state, they do receive public support in the form of Medicaid and Medicare reimbursement.

Table XVII-4 Free-standing and Hospital Inpatient Psychiatric Units by Region				
Region	Facility Type	Facility Name	Ages Served	Beds Set-Up and Staffed
I				0
II	Hospital	Montana Deaconess Medical Center, Great Falls	All Ages	27
III	Hospital	Deaconess Medical Center, Billings	All Ages	60
IV	Hospital	St. Peter's Hospital, Helena	13+	14
	Free-standing	Rivendell Psychiatric Center, Butte	6-18	32
	Free-standing	Shodair Children's Hospital, Helena	6-18	22
V	Hospital	St. Patrick's Hospital, Missoula	12+	26
	Hospital	Pathways, Kalispell Regional Hospital, Kalispell	12+	37 *
*Number of beds includes chemical dependency treatment beds Source: Montana Department of Health and Environmental Sciences. 1993 Montana State Health Plan, 1993.				

Table XVII-5 Residential Treatment Facilities for Children		
Region	Facility Name	Licensed Beds
III	Yellowstone Treatment Center, Billings	104
IV	Rivendell of Montana, Inc., Butte	20
IV	Shodair Residential Treatment Center, Helena	44
Source: Montana Department of Health and Environmental Sciences. 1993 Montana State Health Plan, 1993		

4. MENTAL HEALTH PROFESSIONALS

Montana's mental health services are delivered to the public and private sector by a variety of mental health professional, including the following:

- *Psychiatrist* is a doctor of medicine with additional, specialized expertise in psychiatry. Psychiatrists are qualified to provide counseling and therapy and to prescribe medicine for mental illness. Although psychiatrists do not have to be board-certified to perform these services in Montana, 48 of the 72 psychiatrists in Montana are board-certified, according to the American Board of Medical Specialties.
- *Licensed psychologist* is an individual licensed by DHES who has received a doctorate degree in clinical psychology and has passed an examination given by the Department of Commerce in conjunction with the Board of Psychologists. These psychologists are licensed to provide psychological testing and evaluation including counseling, psychotherapy, and psychoanalysis, but are not licensed to prescribe medication.
- *Licensed social workers* are individuals licensed by DHES who have received a master's or doctorate degree in social work and passed an examination given by the Board of Social Work Examiners and Professional Counselors. They are licensed to aid individuals in making adequate social adjustments through the use of therapy and their special knowledge of social resources.
- *Licensed professional counselors* are individuals licensed by DHES to provide psychotherapeutic services, who have received a master's or doctorate degree in counseling and have passed an examination given by the Board of National Professional Counselors or the National Academy of Certified Clinical Mental Health Counselors.

Table XVII-6 shows the supply and distribution of mental health professionals throughout the state. However, the information does not allow us to determine whether the professionals provide service in private practice, CMHC, or both. Without this information, an accurate assessment of the amount of service provided by the private sector cannot be made at this time.

Table XVII-6 Supply of Mental Health Professionals by Region - 1994						
Mental Health Professional	Region I	Region II	Region III	Region IV	Region V	Statewide
Licensed Professional Counselor	13	34	110	118	122	397
Licensed Social Worker	6	39	60	88	62	255
Licensed Psychologist	4	41	31	47	70	193
Psychiatrists	0	6	26	24	16	72
Source: HSR analysis of Civic Consulting data, 1994						

C. DISCUSSION

This assessment of the supply and distribution of mental health services in Montana considers the following:

- The supply and distribution of inpatient psychiatric services;
- The magnitude of the need for service by various populations; and
- The supply of mental health professionals.

1. Inpatient Resources

The DHES assesses the supply of inpatient psychiatric services by measuring the overall number of inpatient psychiatric beds needed by Montana residents. DHES measures this need by using the projected bed need formula specified in the 1993 Montana State Health

Plan.² According to the State Health Plan, Montana currently has sufficient beds to care for the projected number of adults and children in need of inpatient psychiatric services through 1996. In addition to projected bed need, human needs and cost effectiveness are two other factors directing Montana away from increasing the supply of inpatient beds and encouraging Montana to implement a mental health system for children and adults that uses less restrictive alternatives.

While overall bed supply in Montana is adequate, the state's low population density means that many communities are financially unable to support a local inpatient psychiatric unit, and residents of these communities may have to travel hundreds of miles to receive care. Region 1, which does not have an inpatient psychiatric unit or a single psychiatrist within its borders, is the most glaring example of the need to increase the supply and distribution of psychiatric services.

2. Meeting the Need of the SDMI and SED

The prevalence of severe mental illness among adults and children in Montana indicates the magnitude of the need for service. Table XVII-7 compares estimates of need with the amount of service delivered to both adults and children by the public mental health system. The CMHCs are recorded as meeting 60.5 percent of the need for service by adults with SDMI (Table XVII-7). The MRM program only has been in existence since July 1, 1993 and the data reflects the number of children served as of June, 1994. While data indicates that the needs of only 21.5 percent of the need of children with SED are being met by the MRM program, the targeting of children with SED through the MRM program is a relatively new focus and the percent of children with SED served is expected to increase.

² Bed need formula for inpatient psychiatric beds is projected as follows:

$$[(\text{Utilization rate} \times \text{population projected three years from current year}) / 365] / .85$$

The utilization rate is the inpatient psychiatric days per population in Montana as reported in the most recent DHES Annual Survey of Hospitals.

The projected population is the most recent projected population of Montana three years from the current year, as reported by the U. S. Bureau of Census or NPA Data Services, Inc.

An occupancy factor of .85 is applied to determine bed need.

It is expected that non-SED children formerly served by the public system will be displaced as a result of the new focus.

Table XVII-7 Prevalence of Mental Illness and Clients Served by Public System - 1993			
Program	Total Needing Service (est.) ³	Clients Served	Percent of Need Being Met
CMHC - Adult Services	6201 SDMI	3757	60.5 %
MRM - Children Services	6002 SED	1294*	21.5%
Source: FY 1993 Implementation Report, 1993			
* Number of clients served in MRM program obtained from Montana Mental Health Division, 1994			

3. Supply of Mental Health Professionals

This assessment of the supply of mental health professionals in Montana considers the following:

- Waiting lists at CMHC; and
- Health Professional Shortage Areas.

One indication that there is an inadequate supply of professionals within Montana's public mental health system is the four-to-six week waiting period that currently exists for non-SDMI adults seeking outpatient counseling at CMHCs. The MHD explains that the difficulty in meeting the demand for outpatient services is due to a shortage of licensed professional counselors at CMHCs.

Health Professional Shortage Areas (HPSAs) are another means to measure the supply of mental health professionals. The U.S. Health Resources and Services Administration (HRSA) has two mental health professional shortage designations, one for core mental

³ The estimate for the number of adult Montanans with SDMI was arrived at by utilizing the linear regression model developed at Denver University, Sandy Harris, Montana Mental Health Division. The estimate for the number of children with SED was taken from the Montana Mental Health Division's FY 1993 Implementation Report.

health professionals⁴ and another for psychiatrists. Montana does not collect the data necessary for HRSA to make shortage area designation for core mental health professionals. The MHD does supply HRSA with the data necessary to make mental health professional shortage designations for psychiatrists. Currently, Regions I and II are both designated as mental health professional shortage areas for psychiatrists⁵. This federal designation allows these Montana regions to qualify to receive a psychiatrist through the National Health Service Corps.

D. RECOMMENDATIONS

Based on reports and conversations with MHD staff, the following recommendations are offered to improve the mental health system in Montana.

- To fully and accurately assess statewide mental health services, efforts should be made to develop a better understanding of the supply of private mental health providers and the amount of service they provide.
- Efforts should be made to increase the supply and accessibility of psychiatrist services in Regions I and II. The state should pursue the placement of psychiatrists from the National Service Corps in these two regions which have been designated as mental health professional shortage areas.
- The MHD has identified the development of telephonic psychiatric consultation on medication management for primary care doctors serving patients with mental illness as a means to address some of the need for psychiatric services in underserved areas. For a further discussion of telemedicine, see Chapter XII.
- Studies suggest that overall there is no need to develop new inpatient psychiatric or residential facilities. The exception to this is Region I for which increased access to inpatient psychiatric care should be carefully examined. Efforts should be made to pursue the expansion of its community-based services to meet the needs of those who have been treated in more restrictive facilities in the past.

⁴ Core mental health professionals include: psychiatrists, clinical psychologists, clinical social workers, psychiatric nurse practitioners, and marriage and family therapists.

⁵ An area is designated as a mental health professional shortage areas for psychiatrists if the area has a population to psychiatrists ratio greater than or equal to 30,000 to 1.

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CHAPTER EIGHTEEN

CHEMICAL DEPENDENCY

A. BACKGROUND

Chemical dependency is a term used to describe alcohol and drug use that creates behavioral problems and endangers the health, interpersonal relationships, or economic functions of an individual. The devastating effects of this disease threaten the health, safety, and quality of life for many Americans and place chemical dependency among the nation's most serious health problems. In Montana alone, there are an estimated 100,00 individuals who suffer from chemical dependency.

Since 1985, Montana has ranked 19th in the nation for alcohol consumption per capita. The effects of alcohol abuse, are tragically illustrated in Montana: in 1991, 56.5 percent of all persons killed on Montana highways were killed in alcohol-related accidents. Montana also has a serious multi-drug problem. A total of 25 percent of the admissions to state approved chemical dependency treatment programs reported a primary drug problem other than alcohol in 1993. Chemical dependency is a special problem for Montana's Indian population, which is estimated to have three times the number of alcohol abusers per capita as the general population (Montana Alcohol and Drug Division, 1992).

Chemical dependency is a chronic and sometimes fatal illness, but its effects can be reversed. Abstinence from mood altering chemicals and attainment of individualized treatment can prevent and reverse the harmful effects of alcohol and drug abuse.

Education about the real dangers of chemical dependency and the means to recover from it is an essential part of the recovery process. The Alcohol and Drug Abuse Division (ADAD) of the Department of Corrections and Human Services (DCHS) is the designated state agency for chemical dependency prevention and treatment services. The ADAD's responsibilities include: approval of treatment programs, preparation of long-term state chemical dependency planning, distribution of state and federal funds to approved programs, and the certification of chemical dependency counselors.

The ADAD issues certificates of state approval to chemical dependency programs that comply with applicable state and federal requirements. State approval is required for a program to receive public funding or third-party reimbursement for services. The result of this requirement is that most chemical dependency treatment programs in Montana are state approved. The chemical dependency treatment programs operated by Indian Health Services (IHS) are one exception to this.

The primary sources of revenue for state approved, publicly funded treatment programs are the alcohol earmarked tax, the Federal Alcohol Drug Abuse and Mental Health block grant (ADMS), and direct service revenue. The revenue from the alcohol earmarked tax is generated through dedicated shares of a liquor license tax, a beer tax, and a table wine tax. Appropriations for state operated chemical dependency programs and the State Forensic laboratory are made from this money. The remainder of it is distributed to counties on a monthly basis.¹ Each county's share of the alcohol earmarked tax is transferred to the state approved chemical dependency treatment program that serves its residents. In FY 93, \$1,250,000 of alcohol earmarked tax revenue was distributed to counties. However, as the sale of alcoholic beverages declines, the alcohol earmarked tax becomes a less reliable means to fund chemical dependency programs.

The ADMS block grant award for Montana has remained fixed since 1988 and is not expected to increase. In FY 93, \$2,249,330 was distributed to Montana's state approved chemical dependency treatment program from the ADMS block grant.

However, the distribution formula for the block grant is based on population. Many of Montana's rural programs are therefore at a disadvantage and do not receive significant federal funding.

¹ The formula for the distribution of earmarked alcohol taxes to counties is:

- 85 percent of the county's population in proportion to the total state population; and
- 15 percent according to the proportion of county's land area to the state's land area.

Due to declining public funding, chemical dependency treatment programs are becoming increasingly dependent on the third source of funding, direct service. Medicaid, which represents a significant portion of the direct service revenue for chemical dependency treatment programs, only reimburses for detoxification. The ADAD is currently exploring the possibility of expanding the chemical dependency services reimbursed by Medicaid to secure additional funding and increase services.

B. INVENTORY

Montana's chemical dependency system is composed of two elements: prevention services and treatment services. The following section will identify the types of prevention services available in Montana's communities and inventory chemical dependency treatment services and the facilities that provide them. The final segment will be an inventory of chemical dependency treatment personnel.

1. Chemical Dependency Prevention Services

Chemical dependency prevention services in Montana are primarily directed toward preventing alcohol and drug use by young people. Every day millions of young people experiment with a variety of harmful substances, which jeopardizes their learning and healthy development. Six state agencies and six non-profit organizations are active in providing prevention services in Montana.² These agencies most commonly provide education about the effects and consequences of substance abuse, provision of alternative activities, programs to promote personal empowerment, activities to strengthen family bonds, and the creation of supportive school climates and positive peer group alternatives.³

² The six state agencies involved in providing prevention services are the Department of Justice, through their DARE Coordinator (Drug Abuse Resistance Education); the Montana Board of Crime Control, through the Governor's share of the Drug Free Schools fund; the Office of Public Instruction, through their administration of the Drug Free Schools Fund; the Department of Health and Environmental Sciences through the Prevention Services Bureau and the Family/Maternal and Child Health Bureau; the Agriculture Extension Service, through the 4-H program; and the Department of Corrections and Human Services through their administration of the ADMS block grant and alcohol earmarked tax. The private non-profit organizations involved are the Montana Communities in Action for Drug Free Youth; the Center for Adolescent Development; the Montana United Indian Alliance; the Montana Council on Families; the Montana High School Association; and Healthy Mothers, Healthy Babies.

³ For a comprehensive listing of prevention programs in Montana, refer to *Drug Free Schools and Communities: Program Guidelines and Community Inventory*, published by the Montana Board of Crime

Each state agency and non-profit group plays a crucial role in providing financial and managerial assistance to the local communities, schools, and families interested in creating prevention activities for youth. Closer cooperation among these parties will enable prevention services to be made available to all of Montana's communities.

2. Chemical Dependency Treatment Services

The purpose of chemical dependency treatment is to interrupt the use of mood altering chemicals so that an abuser can recover from the debilitating effects of chemical dependency. Although recovery begins with abstinence, chemical dependency requires additional treatment of varied intensities and lengths to mitigate the damage caused by obsessive use of chemical substances.

Montana is one of several states that use patient placement criteria to determine the appropriate level of care and length of stay for each patient. All state approved chemical dependency programs are required to use national criteria, such as those developed by the American Society for Addiction Medicine, to assess the needs of each patient admitted to their program. This ensures that patients are referred to the appropriate chemical dependency treatment service.

The chemical dependency treatment services that the ADAD issues approval for include the following:

- ***Detoxification***, a service for persons intoxicated or incapacitated by alcohol or drugs. It involves clearing the system of alcohol or drugs, which enables the patient to recover from the effects of intoxication. Detoxification services also include counseling of the patients to receive further treatment and referral to appropriate treatment programs. Detoxification can be received at hospitals or state approved non-hospital detoxification programs. MCDC and Rimrock are the two non-hospital detoxification programs approved by the ADAD in Montana. MCDC has ten detoxification beds and Rimrock Foundation has another eight.
- ***Inpatient Care***, a 24-hour supervised treatment provided in a hospital or a free-standing facility licensed to provide this service. Inpatient services include medical

evaluation and health supervision; chemical dependency education; organized individual, group, and family counseling; discharge referral to the necessary support services; and client follow up after discharge.

- *Intermediate Care*, which provides a transitional phase for clients who have been recently released from chemical dependency inpatient care and who require a moderately structured living arrangement. Services provided under intermediate care include counseling, chemical dependency education, and social and recreational activities.
- *Educational Courses*, which includes the Assessment, Course, Treatment (ACT) program and the Minors In Possession (MIP) program. Participation in the ACT program is mandatory for all DUI (Driving Under the Influence) offenders. It is conducted by state approved programs only. The assessment and educational portion of the program is required for first time offenders, and the treatment portion is required for second time offenders. The MIP program is a course for minors convicted of unlawful possession of intoxicating substances. The educational sessions aim to teach minors the real dangers of chemical abuse and stop their behavior before it becomes a problem.
- *Outpatient Care*, a service for clients living in the community which includes crises intervention, counseling, chemical dependency education, referral services, and a client follow-up program after discharge.
- *Intensive Outpatient*, which is a treatment for clients requiring a structured outpatient program and at least 10 to 30 hours of counseling and chemical dependency educational services per week for four to six weeks. Services provided under intensive outpatient include assessment; individual, group, and family counseling; chemical dependency education; referral; and discharge.
- *Day Treatment*, which is a treatment designed for persons requiring more treatment than intensive outpatient but less than inpatient. This level of care provides from 20 to 40 hours of contact time per week. It is generally provided at an inpatient facility and includes the same services as inpatient treatment, although the client does not reside at the facility. Day treatment became a state approved service in July 1993. Although most inpatient facilities already provide this service, many have not yet completed the approval process.

3. Chemical Dependency Treatment Delivery Sites

Chemical Dependency treatment services in Montana are delivered at a variety of different sites, including:

- Inpatient treatment facilities;

- Outpatient treatment programs; and
- Outpatient treatment programs operated by Indian Health Services.

a. Inpatient Chemical Dependency Treatment Facilities

Table XVIII-1 provides a complete list of the hospitals and the free-standing facilities licensed to provide inpatient chemical dependency treatment in Montana. Although these facilities are licensed as inpatient chemical dependency facilities, many provide outpatient treatment as well. Table XVIII-2 lists the state approved services provided by each facility. All of the facilities listed in Table XVIII-2 receive public funds from the alcohol earmarked tax and ADMS block grant, except for the Rocky Mountain Treatment Center and Wilderness Treatment Center, which are privately funded. Montana Deaconess and St. Patrick hospitals also receive state funding in the form of Medicaid reimbursement for hospital detoxification services.

The Montana Chemical Dependency Treatment Center (MCDC) in Butte is a state operated inpatient chemical dependency treatment facility. MCDC has 90 inpatient beds and 10 detoxification beds available to the public. MCDC is also the state's primary provider of inpatient and detoxification services to the indigent population.

Table XVIII-1 State Approved Inpatient Chemical Dependency Treatment Facilities			
Region	Facility Type	Facility Name	Beds
I			
II	Free-standing	Northern Montana Chemical Dependency, Inc., Havre	21
	Hospital	Montana Deaconess Medical Center, Great Falls	22
	Free-standing	Blackfeet Chemical Dependency Program, Browning	12
	Free-standing	Rocky Mountain Treatment Center, Great Falls	28
III	Free-standing	Rimrock Foundation, Billings	53
IV	Free-standing	Montana Chemical Dependency Treatment Center, Butte	100
V	Free-standing	Wilderness Treatment Center I, Marion	25
	Hospital	Pathways, Kalispell Regional Hospital, Kalispell	37*
	Hospital	St. Patrick Hospital - ATC, Missoula	18
Source: Montana Department of Health and Environmental Sciences. 1993 Montana State Health Plan, 1993			
* Number of beds includes inpatient psychiatric beds			

Table XVIII-2 Services Provided by State approved Inpatient Chemical Dependency Treatment Facilities							
Region	Facility Name	Inpatient	Detoxification	Intensive Outpatient	Education Courses	Outpatient	Day Treatment
I							
II	Northern Montana Chemical Dependency, Inc.	X			X	X	
	Montana Deaconess Medical Center, Great Falls	X			X		X
	Blackfeet Chemical Dependency Program	X					
	Rocky Mountain Treatment Center	X					
III	Rimrock Foundation	X	X	X	X	X	X
IV	Montana Chemical Dependency Treatment Center	X	X				

Table XVIII-2 Services Provided by State approved Inpatient Chemical Dependency Treatment Facilities							
Region	Facility Name	Inpatient	Detoxification	Intensive Outpatient	Education Courses	Outpatient	Day Treatment
V	Wilderness Treatment Center I	X					
	Pathways, Kalispell Regional Hospital, Kalispell	X					
	St. Patrick Hospital - ATC, Missoula	X					
Source: Montana Department of Health and Environmental Sciences, 1993 Montana State Health Plan, 1993							

b. State Approved Outpatient Chemical Dependency Programs

Table XVIII-3 lists Montana's state approved outpatient chemical dependency programs and the services they provide. Each county in the state is served by at least one of these outpatient programs through a network of full-time and part-time satellite offices.

Outpatient treatment and education courses are widely available throughout the state, while intensive outpatient treatment is only available in a few communities. Currently, only one facility in the state provides intermediate care services.

The state also operates several outpatient chemical dependency treatment programs for individuals incarcerated at Montana State Prison and Swan River Forest Camp correctional facilities. Due to the large number of inmates with substance abuse problems, the correctional outpatient programs are too burdened to be truly effective. At present, ADAD and the Corrections Division of DCHS are considering expanding the services provided at the correctional facilities to include intensive outpatient treatment so more inmates may be treated.

Table XVIII-3
State Approved Outpatient Chemical Dependency Treatment Programs

Region	Facility	Outpatient	Intensive Outpatient	Education Course	Intermediate Care
I	Chemical Dependency Services, Inc., Miles City	X	X	X	
	High Plains Chemical Dependency Services, Scooby	X		X	
	Disurict II Alcohol and Drug Program, Glendive	X		X	
II	Gateway Recovery Center, Great Falls	X	X	X	
	TLC Recovery, Inc., Fort Benton	X		X	
III	Alcohol and Drug Services of Central Montana, Inc., Lewiston	X	X	X	
	Southcentral Montana Regional MHC-Chemical Dependency Program, Billings	X	X	X	
IV	Alcohol and Drug Services of Gallatin Co., Bozeman	X	X	X	
	Southwest Chemical Dependency Services, Livingston	X	X	X	
	Alcoholism Services of Anaconda/Deer Lodge, Anaconda	X		X	
	Chemical Dependency and Family Counseling, Inc., Deer Lodge	X		X	
	Butte Silver Bow Dependency Services, Butte	X	X	X	
	Boyd Andrew Chemical Dependency Care Center, Helena	X	X	X	X
	Missoula Indian Alcohol and Drug Program, Missoula	X			
V	Crossroads, Hamilton	X	X	X	
	Community Service Division Alcohol and Substance Abuse Program, St. Ignatius	X		X	
	Lake County Chemical Dependency Services, Polson	X		X	
	Recovery Northwest Alcohol Services Centers, Libby	X		X	
	Flathead Valley Chemical Dependency Clinics, Inc., Kalispell	X	X	X	
	Western Montana Regional Mental Health, Missoula	X	X	X	

Source: Montana Department of Health and Environmental Sciences. 1993 Montana State Health Plan, 1993

c. **Programs Operated by the Indian Health Services**

Indian Health Services (IHS) is a federal agency whose mission is to provide a comprehensive health services delivery system for the Indian people. IHS operates a number of chemical dependency treatment programs in Montana that provide outpatient treatment to Indian people. The only state approved IHS chemical dependency program is Blackfeet Chemical Dependency Program in Browning, which offers inpatient care. Table XVIII-4 lists the chemical dependency programs operated by the IHS in Montana.

Table XVIII-4 Chemical Dependency Treatment Programs Operated by the IHS	
Alcohol Treatment Program	
Urban Center Programs	Type of Service
Indian Health Board of Billings, Billings	Outpatient
North American Indian Alliance, Butte	Outpatient
Native American Center, Inc., Great Falls	Outpatient
Helena Indian Alliance/Leo Pocha Clinic, Helena	Outpatient
Missoula Indian Center, Missoula	Outpatient
Reservation Programs	
Rocky Boy Chemical Dependency, Box Elder	Outpatient
Sponed Bull Treatment Center, Poplar	Transitional care for adolescents and outpatient care for adults
Fort Belknap Alcohol Program, Harlem	Outpatient
Blackfeet Chemical Dependency Program, Browning *	Inpatient
Source: Billings Area Indian Health Services, 1994	
*This is a state approved program	

4. **Personnel**

Chemical dependency services offered at treatment programs are delivered by Certified Chemical Dependency Counselors (CCDC). CCDCs are certified to conduct assessments and provide individual, group, and family counseling as they relate to chemical dependency. CCDCs can also provide chemical dependency education. However, they are

not able to provide detoxification, as this is a medical treatment and must be performed by a person with a medical degree. To be certified as a chemical dependency counselor, an individual must fulfill a minimum education requirement in alcohol and drug studies or a related field, undergo a period of on the job training consisting of 2,000 hours of supervised chemical dependency counseling, and pass a competency based exam given by the DCHS. Table XVIII-5 shows the number of CCDCs in the state of Montana by region.

Table XVIII-5 Certified Chemical Dependency Counselors by Region						
	Region I	Region II	Region III	Region IV	Region V	Total
Certified Chemical Dependency Counselors	44	68	89	136	117	454
Source: Montana Alcohol and Drug Abuse Division, 1994						

Chemical dependency counseling can also be provided by licensed mental health professionals, such as certified licensed professional counselors, licensed social workers, licensed psychologists, and psychiatrists. Many of these mental health professional may provide chemical dependency services during the course of their regular private practice. In addition, a small number of CCDCs may also provide service in a private practice setting. Unfortunately, there are no comprehensive data on the number of private practitioners providing chemical dependency treatment or the amount of service they provide.

C. DISCUSSION

This assessment of chemical dependency treatment services considers the following:

- The need by Montanans for chemical dependency treatment;
- The supply of inpatient chemical dependency treatment services;
- The resource needs identified during county planning process; and
- The supply of chemical dependency counselors.

1. Need for Service and Magnitude of Need

The number of substance abusers who are expected to seek treatment in Montana represents only a portion of the magnitude of the need for chemical dependency treatment. Table XVIII-6 compares the number of abusers expected to seek treatment with those who actually received treatment at a state approved chemical dependency program (Montana Alcohol and Drug Abuse Division, 1992). State approved programs are recorded as meeting 32 percent of the need for chemical dependency treatment services in Montana (Table XVIII-6). The treatment figures in this table only reflect the number of individuals who entered state approved programs. Included in the category of those expected to seek treatment, however, are Indian people who may receive treatment through an IHS chemical dependency program and others who may seek treatment from private practitioners. However, because we do not have the information to determine the volume of service delivered by these two categories of providers we cannot accurately assess how well the need for service is being met statewide.

Table XVIII-6 Number of Abusers, Abusers Seeking Treatment, and Admissions by Region for FY 1991			
	Number of Abusers Seeking Treatment (est.)	Number of Abusers that Received Treatment	Percent of Need Being Met
Statewide Total	9,839	3,145	32.0
Source: Montana Alcohol and Drug Abuse Division. Comprehensive Chemical Dependency Plan, 1992			

2. The Supply of Inpatient Chemical Dependency Treatment Services

The Montana Department of Health and Environmental Sciences (DHES) assesses the overall number of inpatient chemical dependency beds needed by Montana residents as part of the Certificate of Need review process.⁴ According to the 1993 Montana State Health Plan, Montana has approximately 87 beds in excess of the projected need. As of April 1994, the average utilization rate of inpatient chemical dependency beds in Montana was only 45 percent (Montana Alcohol and Drug Abuse Division, 1994). Together, these figures indicate that Montana has sufficient inpatient beds to care for those in need of inpatient chemical dependency treatment.

The provision of inpatient chemical dependency services for Montana's indigent patients is another important consideration. According to FY 1993 ADAD data, 37 percent of the admissions to state approved programs were unemployed and 60 percent had no health insurance (Montana Alcohol and Drug Abuse Division, 1993). The only chemical dependency treatment service that is reimbursed by Medicaid in Montana is hospital detoxification. Moreover, nearly all of the chemical dependency treatment beds set aside for the indigent are located at MCDC. This means that the 90 inpatient chemical dependency beds located at MCDC serve the indigent patients from all five of Montana's regions. The result is that, until recently, a waiting period of several months existed at MCDC. The ADAD has since implemented stricter admission standards to bring the period down to two weeks.

3. Resource Needs Identified During County Planning Process

Every four years, each county in Montana submits an updated County Chemical Dependency Plan to the ADAD to help the Division assess county needs. Through this process, the ADAD has recognized a need for intermediate care services for women and children. Currently, there is only one state approved intermediate care facility in Montana,

⁴ The following is the inpatient chemical dependency bed need formula used by Montana Department of Health and Environmental Sciences: [Number of abusers x .10 (abusers seeking treatment) x .24 (Percentage of those seeking treatment needing inpatient care) x 28 (average length of stay) x 365/.80 (utilization rate)] = bed need.

Boyd Andrews Chemical Dependency Care Center, and it serves only men. Insurance does not reimburse for intermediate care, so the ADAD has difficulty finding facilities to contract for this service. Intermediate care is an expensive treatment service, especially when children are involved. There is some question about whether there is enough demand in any one community to support such a facility. The need for intermediate care for women and children should be carefully examined by the state in light of these factors and less costly alternatives should be identified and considered.

4. The Supply of Chemical Dependency Counselors

The ADAD reports that there are enough CCDCs. It is difficult, however, to determine the adequacy of their supply because, while we know the number of CCDCs in the state of Montana, there are no generally accepted standards to determine the appropriate number of these professionals required to provide adequate service.

D. RECOMMENDATIONS

Based on reports published by and discussions with staff from ADAD and conversations with treatment program administrators, the following recommendations are offered to improve Montana's chemical dependency services:

- To fully and accurately assess statewide chemical dependency services, efforts should be made to develop a better understanding of the supply of private practitioners and the amount of chemical dependency services they are providing, as well as the amount of chemical dependency services delivered by IHS.
- Prevention activities in chemical dependency are critical. Continued efforts should be made to support and assist the efforts of local entities to institute prevention programs in their communities. In addition, Montana should encourage coordination of the state agencies and non-profit organizations already involved in prevention program planning.
- Efforts should be made to investigate the need for intermediate care services for women and children and consider the use of less costly alternatives to meet the needs of this population.

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CHAPTER NINETEEN

CHILDREN WITH SPECIAL HEALTH CARE NEEDS

A. BACKGROUND

The phrase "children with special health care needs (CSHCN)" is a catch-all used to describe a broad population of children, including those with disabilities and handicapping conditions, chronic illnesses and conditions, and health-related educational and behavioral problems (U.S. Bureau of Maternal and Child Health, 1992). Although they suffer from distinct conditions and illnesses, CSHCN share a common need for special services (New England SERVE, 1989). The health system needed to serve CSHCN is complex, requiring a wide range of primary, specialty and support services, and coordination of those services.

Since 1989, there has been a national movement to improve services for CSHCN. States accepting federal Maternal and Child Health Block Grant funds are required to develop systems that provide comprehensive, family-centered, community-based, coordinated, and culturally competent care to CSHCN. These systems should recognize the central role of family in the planning and management of children's care, deliver services close to home in the least restrictive environment possible, respond to cultural differences between families, and coordinate all of the services children receive from different providers.

B. INVENTORY

1. Children's Special Health Services Program

The Children's Special Health Services Program (CSHS), within the Family/Maternal and Child Health Bureau of the Department of Health and Environmental Sciences, is the state agency responsible for CSHCN. It is mandated under Montana law to "develop, adopt, and administer rules setting standards for a program to provide services to handicapped children (F/MCH Bureau, 1994)." CSHS serves the dual role of service provider and payer.

a. Specialty Clinics

Specialty services for CSHCN are provided by both the public and private sectors. CSHS operates a variety of specialty clinics, including those concentrating on cleft and craniofacial malformations, pediatric cardiology, pediatric neurology, juvenile rheumatoid arthritis and related conditions, and metabolic disorders. A pulmonary/cystic fibrosis clinic, currently under private ownership, is likely to come under the auspices of CSHS during state fiscal year 1995. These clinics are distributed across the state, but largely concentrated in urban centers (Table XIX-1). They are staffed by specialists who travel to the different sites periodically to provide screening, diagnosis, evaluation and some management services. CSHS clinics are open to all CSHCN regardless of insurance status or ability to pay.

Table XIX-1 CSHS Specialty Clinics				
Pediatric Cardiology Clinics	Cleft/ Craniofacial Clinics	Pediatric Neurology Clinics	Juvenile Rheumatoid Arthritis Clinics	Metabolic Clinics
Billings Bozeman Browning* Butte Glasgow Great Falls Havre Helena Kalispell Miles City Missoula Poplar* *For tribal health only	Billings Bozeman Great Falls Kalispell Missoula Wolf Point	Great Falls Helena Kalispell	Billings Helena Kalispell	Billings Helena
Source: Montana Bureau of Family/Maternal and Child Health Bureau, 1994				

There are also a number of privately operated specialty clinics within the state. These focus on genetics, growth disorders, diabetes, and hemophilia. While these clinics do not receive direct funding from CSHS, they may serve children whose care is financed by CSHS (see Section c below). All of these clinics, with the exception of the genetics clinics, are served by out-of-state specialists. The genetics clinics are supported by the Montana Medical Genetics Program facility located at Shodair Hospital in Helena.

b. Follow Me Project

Another major activity of CSHS is the Follow Me Project, a registry and tracking system that identifies, follows, and serves infants and children with special health needs or developmental delays up through school age. Follow Me began with pilot projects in 1993, building upon existing high risk infant tracking and follow-up systems functioning at the local level. Currently, ten counties receive CSHS funding for Follow Me Projects. Four additional counties and the state's air force base have begun implementing some aspects of the program on their own in the absence of CSHS funds.

Follow Me projects are operated out of local health departments. The major service component is a home visiting program conducted by community health nurses who provide an array of preventive services, including anticipatory guidance, developmental assessment, and referral to families with CSHCN. The Project's objectives include promoting child health and development, improving parenting skills, and facilitating children's receipt of early intervention and other needed services. These projects rely heavily upon data systems designed to facilitate case management and tracking of CSHCN. These systems collect information on children's health conditions and the services they receive.

c. CSHS Direct Reimbursement

In addition to the direct delivery of services, CSHS functions as a payer of last resort, covering CSHCN who lack private health insurance and are ineligible for Medicaid. This is a relatively minor responsibility of CSHS given that Medicaid covers a substantial proportion of low income, disabled children. To be eligible for CSHS coverage, children must live in families with incomes at or below 200 percent of poverty. They must also have a handicapping condition that can be cured, improved or stabilized through treatment, or a chronic disease like asthma or diabetes. Due to financial constraints, CSHS excludes coverage for catastrophic illnesses (e.g. cancer) and a limited number of other conditions.

2. Other State Providers of CSHCN Services

In addition to CSHS services, the following state-administered programs provide services to CSHCN:

- *Part H Early Intervention Program.* This is a federally funded program that provides early intervention services for infants and toddlers up to age three who exhibit or are at risk of developmental delay. The Department of Social and Rehabilitation Services, Division of Developmental Disabilities is the lead agency for Part H activities.
- *Managing Resources Montana (MRM).* This program provides community-based health services to children and adolescents with emotional, behavioral and mental disorders. It is administered by the State Department of Corrections and Human Services, Mental Health Division.¹

C. DISCUSSION

The development of a health system that provides comprehensive, family-centered, community-based, coordinated and culturally competent care to CSHCN poses a difficult challenge to Montana for a number of reasons. First, the state faces a shortage of subspecialty providers needed to serve CSHCN as evidenced by the system's heavy reliance on traveling and out-of-state physicians to staff its specialty clinics. Second, the number of CSHCN is relatively small and these children are distributed across the entire state. These factors make it exceptionally difficult to bring specialty services to the community level. Nevertheless, CSHS remains dedicated to these objectives.

One means of measuring the health system's success at serving CSHCN is to review its progress toward the state's Year 2000 objectives for identifying and serving this population of children. The state is doing exceptionally well at meeting its objectives concerning infant screening for genetic disorders and other disabling conditions. It has already exceeded its Year 2,000 objectives of screening 95 percent of all newborns for Galactosemia and appropriately treating 90 percent of positively identified newborns, by achieving 100 percent on both measures (F/MCH Bureau, 1993). When it comes to

¹See Chapter Seventeen for further discussion of MRM

screening and treating older children for chronic and disabling conditions, the state does not perform as well. The state set the Year 2000 objective of getting 95 percent of all eligible children to participate in the full complement of Medicaid's Early and Periodic Screening Program; however, as of FY 1992 it had only achieved 13 percent.

Finally, the state set the Year 2000 objective of ensuring that all low income children and children with disabilities have access to appropriate and high quality early childhood developmental programs in their preschool years. Unfortunately, there is no information available to measure the state's progress toward this objective. These mixed findings, and the lack of additional information, make it difficult to draw conclusions as to the adequacy of the system serving CSHCN.

D. RECOMMENDATIONS

Based upon review of the available data and the findings of the Bureau of Maternal and Child Health's regional review of Montana's maternal and child health system, the following recommendations are offered to improve the state's health system serving CSHCN:

- The Follow Me Project should be supported and expanded to ensure that all high risk families receive case management services and that standards and protocols for high risk follow-up are developed and instituted.
- Efforts should be made to further the adoption of a comprehensive, family-centered, community-based, coordinated, and culturally competent system to ensure provision of services beyond strictly biomedical ones.

Sources

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CHAPTER TWENTY

SPECIAL NEEDS POPULATIONS - DEVELOPMENTALLY DISABLED

A. BACKGROUND

Developmental disability refers to a mental or physical disability, present since childhood, that represents a substantial handicap to an individual. The Montana definition of developmental disabilities, written as part of the Montana Developmental Disabilities Services and Facilities Act of 1974, requires a diagnosis of mental retardation, or cerebral palsy, autism, or other neurological handicap that requires treatment similar to that needed by a person with mental retardation.

The Developmental Disabilities Division (DDD) of the Department of Social and Rehabilitation Services (SRS) administers services for persons with developmental disabilities in Montana and provides a wide variety of services, including direct institutional and community residential services, educational services, community support, case management, health related services, advocacy, and planning services.

The Medicaid Services Division within SRS is the major source of funding for developmental disability services. Medicaid pays for about 80 percent of all developmental disability services and directs a number of services, including the Home-and-Community-Based waiver program, which affect the developmentally disabled population. In addition to the community services offered through DDD, the Department of Corrections and Human Services (DCHS) operates two state facilities that provide residential services to adults and children with severe disabilities.

B. INVENTORY

1. Institutional Facilities for the Developmentally Disabled

Intermediate care facilities for the mentally retarded (ICF/MR) provide specialized institutional care to persons with developmental disabilities. These facilities provide personal care, training, education, and necessary medical treatment to individuals with severe disabilities who cannot be adequately cared for in community homes.

The DCHS operates two ICF/MR facilities for persons with severe developmental disabilities, the Montana Developmental Center (MDC) and Eastmont Human Services Center. MDC is a 115 bed facility and serves 110 residents. Progressive deinstitutionalization has reduced the population from 865 in 1970 to its current level. Continued deinstitutionalization is consistent with the adopted mission of MDC. The mission is to "serve persons with developmental disabilities whose behavior problems are so severe that they cannot be safely and effectively served in community-based settings." Eastmont Human Services Center, a much smaller ICF/MR, provides residential services to approximately 50 persons who benefit from the smaller setting and are on waiting lists for appropriate community services.

The Mental Health Division of DCHS operates two facilities for people with severe mental illness, the Montana State Hospital Warm Springs Campus and the Montana Center for the Aged. These facilities serve approximately 25 individuals who have a secondary diagnosis of developmental disability.

There is one privately owned ICF/MR facility in the state, Orchard View, which is located in Polson in Lake County, and has only 8 beds. Due to its small size, the facility operates more like a community-based residential home than an institutional facility.

Table XX-1 lists the institutional facilities, the primary type of facility, and the number of people served.

<p align="center">Table XX-1 Institutional Facilities for the Developmentally Disabled</p>		
Name	Type of Facility	Number Developmentally Disabled Served
Montana Developmental Center	ICF/MR	110
Eastmont Human Services Center	ICF/MR	50
Orchard View	ICF/MR	8
Montana State Hospital	Inpatient Psychiatric Hospital	10-15
Montana Center for the Aged	Nursing Facility	5-10
Source: Developmental Disabilities Planning and Advisory Council State Plan, 1995-1997		

2. Community-Based Services

DDD contracts with 40 private, non-profit entities to provide community services for persons with developmental disabilities. As of June 1994, DDD was providing services to 3,175 people. The types of community services can be divided into four broad categories: vocational and day services, home based services to families, residential services, and support services.

a. Vocational and Day Services

Vocational and day services provide a variety of skill development or employment-oriented services. The goal of these services is to prepare people with developmental disabilities to move into sheltered workshops, supported employment, or competitive employment. These services include:

- **Work Activity Centers.** These centers provide a wide range of services to adults, including basic education, job skill training, supported employment, and paid work to help those with developmental disabilities to enter the work force.
- **Intensive Adult Habilitation.** These services provide day training to adults who are not ready for vocationally oriented programs. Many of these people have few primary self-help skills, some have physical handicaps, and some have severe behavior problems. These programs must have lower staff to patient ratios to serve persons with more intensive training needs.

- **Individual Job Placement.** This service provides job training and monitoring and follow up services to facilitate placement of individuals into competitive or supported employment in the community.
- **Senior Day Programs.** These programs are more flexible and less vocationally oriented than the other services in this category. Senior day programs provide training and activities specific to the needs of the elderly, such as assistance with the development of socialization skills and maintenance of self-help skills.

Table XX-2 identifies the availability of services and the number of people receiving each service per region. Individuals often receive more than one service, so the totals do not provide an unduplicated count of the number of individuals receiving services. The most frequently used services are the work activity centers, and the least used services are senior day services. Although a service may be available within a region, it may not be easily accessible to every person in need of the service.

Table XX-2 Vocational and Day Services Provided by Region					
Service Provided	Region I	Region II	Region III	Region IV	Region V
Work Activity Centers	149	225	129	273	302
Intensive Adult Habilitation	21	50	53	80	76
Job Placement	None	11	66	55	26
Senior Day Services	None	29	26	56	None
Total Services Provided	170	315	274	464	404
Source: DDD report, July 1994					

b. Home-Based Services to Families

Caring for family members with developmental disabilities in the home is a difficult for families. The continuous care required by people with disabilities, coupled with the financial burden incurred by family members with special needs, strains family resources and coping mechanisms. Home-based services offer a variety of services to natural and foster parents to enable them to keep the family together, while providing the necessary care for their developmentally disabled child. Unlike many of the other services offered

through DDD, providers of family services travel to the homes of service recipients.

Family service program headquarters are located in Glasgow, Miles City, Billings, Great Falls, Helena, and Missoula and provide outreach services in multi-county areas. These home based services include:

- *Family Support.* This service provides training to help parents in care for and teach their children, as well as support and assistance to help them meet the challenges associated with having a family member with a disability.
- *Respite Care.* This service provides short-term care for developmentally disabled adults and children to relieve parents and family members of the demands of continuous care of a family member with a disability.
- *Specialized Family Care.* This service targets families of children with severe disabilities who are at risk for placement in institutions. Services consist of case management and extra support services aimed at providing the necessary support to enable families to keep these children at home.
- *Infant and Toddler Program.* This federal program gives children under the age of three who meet state-established eligibility criteria and their families entitlement to early intervention and home based services. These services include development of an Individualized Family Service Plan, ongoing service coordination, family education, and "wrap around" services for the child that may include physical, occupational, and speech therapies and assistive technology.

Table XX-3 presents the home-based services available by region and the individuals receiving these services. Home-based services represent the largest component of the Developmental Disability system. Family support services are the most used services while specialized family care services are the least used.

<p align="center">Table XX-3 Home-Based Services to Families Provided by Region</p>					
Service Provided	Region I	Region II	Region III	Region IV	Region V
Family Support Services	92	91	54	289	123
Respite Care	84	118	139	N/A*	176
Specialized Family Care	22	28	34	30	31
Infant and Toddler Program	96	105	133	48	69
Total Services Provided	294	342	360	796	399
<p>Source: DDD report, July 1994</p> <p>* As part of a demonstration project, respite care services are included as a "wrap around" service for families receiving family support services and exact numbers of individuals receiving this service were not available.</p>					

c. Residential Services

Residential services provide specialized living arrangements for people with developmental disabilities. The goal of these services is to enable disabled persons to live as independently as possible in the community. Residential services are not limited to group homes, but rather provide a range of service intensity depending upon the needs of the individual. Residential services include:

- **Adult Group Homes.** Comprising the majority of residential services for adults, these homes provide training to adults, usually in eight-person settings, to help them become more independent by gaining such skills as cooking, and housekeeping. The goal of this service is to enable people to move to transitional or independent living.
- **Intensive Group Homes.** These homes serve adults who need more intensive training than that provided by a group home. These adults usually have low self-help skills or have challenging behaviors and require more staff. The goal of this service is to move adults to a less restrictive, regular adult group home.
- **Children's Group Homes.** These homes are intended to serve children who cannot be cared for in natural, foster, or adoptive homes. Many of these children have serious physical and medical disabilities, most are learning primary self-help skills, and some have challenging behaviors.

- *Senior Group Homes.* These homes accommodate and train the disabled elderly. The primary intent of senior group homes is to enable residents to maintain the skills necessary for daily living.
- *Transitional Living Services.* This service was developed to provide an intermediate step between a group home and independent living. Individuals live in congregate apartments alone with staff who supervise and train residents.
- *Independent Living Training.* This service helps people with disabilities live independently in the community. Staff members provide training in independent living skills, but do not live at the apartment complex.
- *Supported Living.* These are individually tailored arrangements of resources and are supports designed to enable people to live in more integrated, normal ways than had previously been possible. The benchmark of this program is that the type of service provided is based on the individual's strengths, needs, and desires, not on the ability of the individual to conform to a pre-established service model.

Table XX-4 presents the residential services provided and the number of individuals receiving services per region. Adult group homes comprise the largest component of residential services, serving 389 adults, while senior group homes represent the smallest component, serving only 32 elderly in two counties. Although supported living is a relatively new service and currently serves 75 adults, it has been identified as the future of the developmental disabilities community program and has been targeted for expansion.

Table XX-4 Residential Services Provided by Region					
Service Provided	Region I	Region II	Region III	Region IV	Region V
Adult Group Home	57	85	63	111	73
Intensive Group Home	23	38	40	68	69
Children's Group Home	5	10	18	22	4
Senior Group Home	None	16	None	16	None
Transitional Living Services	24	11	20	34	27
Independent Living Services	26	47	58	58	42
Supported Living	3	10	13	17	32
Total Services Provided	138	217	212	326	247
Source: DDD report, July 1994					

d. Support Services

Numerous services are provided to developmentally disabled people to help them live and work in the community. These services include:

- *Adaptive Equipment.* This service designs and provides specialized equipment, such as wheelchairs, in addition to consultation services for persons with developmental disabilities, throughout the state; and
- *Transportation.* Both public and private transportation is provided statewide to persons with disabilities to promote access to day training programs and to the community.

Both adaptive equipment and transportation services are available throughout the state. As will be noted later in the chapter, however, while these services may be available to the developmentally disabled in the state, they may not be adequate to meet the needs of these individuals.

e. Case Management Services

DDD offers targeted case management services to all persons eligible for developmental disabilities services and to a limited number of people currently on the waiting list for services. Provided on a contractual basis by private agencies and directly by DDD employees, case management services include intake and referral, assessment, coordination of service delivery, and development of a service plan in conjunction with the person receiving services. Case management is a valuable service that ensures that individuals are receiving appropriate services. These services are funded primarily through Medicaid, although a small amount of general fund monies are reserved to pay for individuals who are not Medicaid eligible.

C. DISCUSSION

The discussion of the adequacy of resources for people with developmental disabilities includes an examination of the following areas:

- Unmet need; and
- Services to special populations;

1. Unmet Need

An evaluation unmet need for developmental disabilities services is assessed by looking at current waiting lists for services and using prevalence data to estimate the number of people who need, but do not receive services.

a. Waiting Lists

As of June 1994, there were 1,321 people--537 children and 784 adults--on waiting lists for developmental disabilities services. The waiting lists include people who are currently receiving services but need additional ones and people who are eligible for services but are not receiving any. Current resources are not meeting the need for services. An examination of the waiting list reveals that vocational and other day services and residential services are the areas of greatest shortage. The specific services with the greatest unmet

need are individual job placement, adult group homes, respite care services, work activity centers, transitional living services, and family support services.

b. Prevalence Estimates

Research in the area of mental retardation estimates that 1.8 percent of the population of the U.S. has some developmental disability (Gollay, 1981). Using the official 1990 Census Bureau population estimate for Montana of 799,013 and this national percentage, the estimated number of individuals in Montana with developmental disabilities is 14,380. In the 1994 state plan for persons with developmental disabilities, the Developmental Disabilities Planning and Advisory Council, estimated the number of Montanans identified as developmentally disabled and receiving services in a wide array of settings (including 2,790 children presently receiving special education services and 486 children and adults on waiting lists for community services) as 6,894. This suggests that approximately 7,500 individuals who could benefit from targeted services are not receiving them.

One of the reasons for the discrepancy between estimates of individuals with disabilities and the number of people receiving services is the comparatively narrow definition of developmental disability used to determine eligibility for services in Montana. Categorical in nature, the Montana eligibility standard requires a diagnosis of mental retardation or other neurological handicap needing similar treatment. This limits the number of people who are eligible to receive services. As a result, a number of people with less severe disabilities who would benefit from services do not qualify for them. Although many people in the state recognize the limitations of the state definition, adoption of a less restrictive definition would result in a dramatic increase in the number of persons on the waiting list for services, placing additional strain on a system that is struggling to keep up with current demands.

2. Services to Special Populations

The Developmental Disabilities Planning and Advisory Council has identified two groups for which specialized services need to be developed or enhanced:

- *Native Americans.* Native Americans represent 5.9 percent of the population of Montana (based on 1990 Census data), but constitute more than 15 percent of individuals receiving developmental disability services. As currently structured, developmental disability services in Montana are not geared to provide culturally sensitive services that are easily accessible to the Native American population. Only three of the adult residential facilities are located in areas with significant Native American residents. According to the State Plan for Persons with Developmental Disabilities, a greater effort needs to be made to improve the quality of care and the cultural sensitivity of services provided to Native Americans.
- *Dually Diagnosed.* Another special population who do not receive adequate services is the dually diagnosed. Persons who are dually diagnosed have developmental disabilities in addition to a primary or secondary diagnosis of mental illness. Representing approximately eight percent of persons with developmental disabilities, dually diagnosed individuals have special needs that are not currently being met by the developmental disabilities system or the mental health system. Only a few formal arrangements enable developmental disabilities and mental health providers to coordinate services.

D. RECOMMENDATIONS

The following are drawn from public planning forums conducted in 1993 and initiated by the Developmental Disabilities Planning and Advisory Council.

- Expansion of the vocational services program is needed to provide meaningful, paid work to people currently receiving these services and to accommodate those on the waiting lists for these services. Efforts must continue to obtain community work contracts and find and encourage more employers to consider supported employment as an option.
- There are more than 500 people on the waiting list for all types of residential placement, and 100 of them are seeking placement in a supported living program. A priority should be placed on expanding residential services, especially the supported living program, through the acquisition of new facilities and the conversion of existing homes. In addition, increased funding is needed to ensure that appropriate support services are available to people in alternative living situations, such as supported, independent, and transitional living arrangements.
- The lack of adequate transportation services is a severe problem for people with developmental disabilities in Montana, especially those in the more rural areas of the state. General expansion of the current transportation services should be considered and cooperation among agencies that provide transportation services should be encouraged to allow for more effective use of these services.

- There are currently no services available to meet the needs of individuals with developmental disabilities who are sexual offenders. In many cases, these individuals are placed in the Montana Developmental Center (MDC) to keep them safe and out of the community. While MDC has created a treatment program which appears to be effective, to serve more individuals, similar programs need to be developed at the community level.

A number of individuals receiving developmental disabilities services also have emotional disturbances. Unfortunately, there are few counselors in the mental health field who are trained to work with people with developmental disabilities. As a result, most of these people are unable to obtain the counseling they need. Efforts need to be made to train counselors to work with the developmentally disabled.

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APPENDIX A

HEALTH PROMOTION AND DISEASE PREVENTION

A. INTRODUCTION

The public health system has a broad-based responsibility for all Montanans. Government assumes the obligation to ensure public health is secured. The intent is to ensure improvement in the health of its people and access to core public health and prevention services. The system involves support for population-based health and a personal health care system, social and economic policy to promote health, and a broad approach to assure access to care for underserved populations.

1. Public Health and Universal Access

Public health protects the population from health risks and educates individuals in behaviors that promote improved health status. These responsibilities are carried out through three core functions--assessment, policy development and assurance.

- *Assessment* is regular collection, analysis and sharing of information about health conditions, risk and resources in the community and state. It is needed to identify trends in illness, injury and death and the factors which may cause these events, available resources and their application, unmet needs, and community perceptions about health issues.
- *Policy Development* takes place in response to specific community and state health needs and involves ensuring policies are feasible and measurable, and identifying resources to implement the policies.
- *Assurance* means making sure that needed health services and functions are available. It focuses on maintaining the capacity to manage day-to-day operations and provide public health core functions.

Public health in Montana, under the current health care system, has moved away from emphasis on the core public health functions and has increased the provision of secondary prevention services which are personal health care services. Universal access to personal health care services will permit public health resources to be used for the core functions of

public health. Where other providers are not available in the community to offer certain personal preventive health care services, public health may provide them just as another provider would. The role of public health in personal health care services will be negotiated in each community.

The services that public health should provide in every community are to:

- *Prevent epidemics* through chronic and infectious disease prevention, and epidemiological investigations.
- *Protect the environment, workplace, housing, food and water* through air and water quality regulation, food service protection and sanitation services.
- *Monitor the health conditions of the population* through assessment and surveillance of local and state health conditions and maintenance of a statewide health data base.
- *Promote healthy behaviors* through education programs to prevent chronic and communicable diseases.
- *Develop policies to promote health* including statewide public health standards for education, services and regulation to prevent disease and promote health.
- *Train specialists in investigating and preventing disease*, expand continuing education for public health professionals and provide training in disease prevention for other health professionals.
- *Assure that medical services are high quality and necessary*. This includes securing a skilled public health work force, monitoring availability and accessibility of personal health services and providing public health laboratory services.
- *Mobilize communities for action* and provide services such as immunizations, well-child clinics, WIC services, family planning services, and other community based programs that supplement the personal health care system in prevention of disease and promotion of health.
- *Respond to disasters* such as toxic spills, disease epidemics, etc.

2. Public Health and National Health Care Reform

National health care reform has resulted in reevaluation of the role of every segment of the health care system. There is a return to public health being viewed as a system for providing the core public health functions and less as a safety net for persons without access to other services. The direction of federal funding and technical support to states and local health departments will be toward strengthening the core functions. The role of public health in personal health care will then be negotiated locally, based on the needs and resources of the community.

B. PUBLIC HEALTH IN MONTANA

1. Public Health Infrastructure in Montana

a. Administrative Authority

The public health system in Montana consists of the Montana Department of Health and Environmental Sciences (MDHES) at the state level and independent local public health departments at the city and county level. Responsibility is shared by state and local public health authorities, but specific roles in that shared responsibility are not formally specified. Standards for public health services exist for some functions, but usually as a result of funding source requirements and not state law or standards developed by the public health authorities. Only seven of Montana's counties have complete health departments with full-time directors. The others, in most cases, have part-time health officers and a diverse set of public health sanitarian, nurse or other public health services.

b. Funding

Public health in Montana is funded through a combination of federal, state and local funding sources. The MDHES in state fiscal year 1995 had the following funding sources:

■ State general fund	4.80 %
■ State special revenue ¹	22.46 %
■ Federal funds	69.04 %
■ Proprietary funds	3.70 %

¹ State special revenue is from fees, fines, non-federal grants, etc.

Local public health is funded by local general fund, local public health assessments and grants and contracts from MDHES. The grants and contracts are mostly for specific categorical programs and are not available to support the core public health functions. Funding varies greatly among counties and in many, few public health services are covered.

C. SUMMARY OF THE HEALTH STATUS OF MONTANANS

As mentioned above, public health has three core functions: assessment--measuring community health status and resource availability; policy development--using assessment data to define policies and recommending programs to carry out those policies; and assurance--ensuring necessary, high quality, effective services.

To carry out the assessment function, the MDHES collects and analyzes a variety of data on the health status of Montanans. These data include vital statistics, health behavior survey results, communicable disease reports, and cancer and trauma registry abstracts.

Natality, mortality and selected morbidity data are available through the Vital Records and Health Statistics Bureau. Vital statistics reports cover each calendar year from 1954 through 1992. Each report includes tabulations of birth and death data and a summary of the incidence of reportable, communicable diseases. Since 1985, the report has also included a synopsis of Montana Central Tumor Registry data. Special reports and statistical analyses are available, as resources permit, for vital events and trends since 1979.

At present, morbidity data are available from a variety of sources including MDHES, Medicare, Medicaid, Montana/Wyoming Foundation for Medical Care, Montana Hospital Association, and a variety of public and private health care providers. However, no central repository or system of analysis is currently available, making it difficult to present a comprehensive picture of morbidity in Montana.

Presented here is a summary of MDHES data on birth, death and cancer morbidity. Communicable disease and health behavior data collected by MDHES are included elsewhere in this document.

1. Natality

There were 11,468 babies born to Montana residents in 1992, continuing a 12-year decline in the birth rate.

Montana residents giving birth in 1992 were predominantly married, white women aged 20 to 34 years. Although small, the proportion of births to women of other races is higher than might be expected. While whites make up about 93% of Montana's population, infants of white mothers accounted for about 87% of the resident births. Almost 12% were born to Native American mothers and 1.3% were born to women of other or unstated races.

Native American and black mothers tended to be younger when their infants were born than their white counterparts. White women (including those of Hispanic origin) tended to be younger than women of Asian or Pacific Island races. The proportion of births to unmarried women has been growing steadily since 1980. Unmarried women were likely to be younger when they gave birth than married women.

Nationally, an infant's weight at birth is related to prenatal care received and the mother's health and health-related behavior. Low birth weight is associated with delayed or no prenatal care and with negative birth outcomes. Infants weighing less than 2500 grams (about 5 pounds, 8 ounces) are defined as "low birthweight" babies. Those weighing less than 1500 grams (about 3 pounds, 4.8 ounces) are "very low birthweight" babies.

The mean birth weight for a Montana resident newborn in 1992 was 7 pounds, 6.8 ounces. There were 681 low birthweight babies born to Montana residents. Eighty-two of them had very low birth weights. The rate of low birthweight births per thousand population changed very little in the 10 years from 1983 to 1992, although the overall birth rate has been declining. Montana's low birthweight babies born in 1992 tended to have more associated risk factors and health problems and to be less viable than the heavier infants.

The amount of prenatal care Montanans received showed a significant association with birth weight, with birth weights tending to increase with the number of prenatal care visits. In 1992, low birth weight was related to the mother's age and race and to the infant's plurality and

gestational age. Teenaged women tended to have lower birthweight babies than those aged 20 or older and their infants were at greater risk of death during the calendar year. Native American women had heavier babies than white women, regardless of the infant's viability. Predictably, longer-term babies were heavier and more viable, while infants of multiple births tended to weigh less than those of single births.

2. Mortality

The state and national crude death rates have shown a slow decline, changing very little in more than 25 years. The Montana rate was slightly higher than the national rate from 1986 to 1990, but has otherwise followed the national trend fairly closely since 1946. Montana's death rate in 1992 was 8.6 per 1,000 population.

Of the 7,067 Montana residents who died in 1992, 53.3% were males and 46.7% were females. More than 95% were white and 4.3% were Native American. In general, Montana resident women who died in 1992 had lived longer than men, and whites had lived longer than those of other races (non-whites). The patterns of age at death differed markedly by race. Non-whites were likely to die at any age, while whites most often died at advanced ages. A large proportion of non-white decedents were very young, and the average age at death was much lower. Six percent of the non-white decedents were infants, compared to one percent of white decedents.

Fetal, infant and maternal mortality rates have declined fairly steadily during the twentieth century in Montana and the nation. While maternal death has become rare among Montana residents, fetal and infant deaths remain causes for concern, especially among races other than white. There were 84 resident fetal deaths and 85 resident infant deaths in Montana in 1992. Almost 24% of infant deaths were non-white infants. The mother was non-white for 15.5% of resident fetal deaths. By comparison, the mothers of 13.1% of Montana resident newborns were non-white.

2. Cancer Morbidity and Mortality

The second leading cause of death--nationwide and in Montana--is cancer. Cancer is usually identified by the primary site--that is, the name of the organ system first affected--for example, lung cancer, breast cancer.

Table A-1 shows numbers of new cases in 1992 and five-year survival rates for the four most frequently diagnosed cancer sites. The five-year survival rate is the proportion of patients alive five years after the initial cancer diagnosis or treatment. Calculating survival rates for each primary cancer site allows for the measurement of the effects of early diagnosis, of various treatments, as well as the responsiveness of different cancers to treatment. The figure shows survival rates for all cases and for cases diagnosed at a local stage. "Local stage" means the cancer had not spread beyond the primary site when it was diagnosed or first treated.

In Montana, the most frequently diagnosed cancers affect the prostate (577), breast (492), lung (417) and colon (226), accounting for 1,712 of the total 3,004 cancers diagnosed in 1992. These four sites make up 57% of the total cancers diagnosed in the state in 1992.

Patients diagnosed with breast cancer had the greatest likelihood of survival five years after diagnosis or initial treatment. Lung cancer had the lowest five-year survival rate as of 1992. It is important to note that for lung cancer there is no preventive diagnostic available to screen for tumor growth in the local stage. Thus, lung cancer is more likely to be diagnosed in a later stage, making it difficult to treat. Even when diagnosed at a local stage, the risk of death is highest for lung cancer. The five-year survival rate for lung cancers diagnosed when the cancer had not spread beyond the lung was 34% in 1992, compared to 92% or above for the other three sites.

Table A-1 Cancer Incidence in 1992 and Five-Year Survival Rates as of 1992* By Site for Montana and The United States						
	Montana			United States		
Site	Incidence			Incidence		
		All Stages	Local Stage		All Stages	Local Stage
Prostate	577	79%	92%	132,000	74%	88%
Breast	492	81%	95%	181,000	77%	92%
Lung	417	12%	34%	168,000	13%	41%
Colon	226	58%	93%	111,000	56%	88%
* Rates are calculated for cases diagnosed in 1988 and represent the percent of those cancer patients living in 1992						

Eliminating cancer as a major contributor to morbidity and mortality will require continued research to define its causes, relationship to personal health behavior, and more effective treatment strategies. There are examples of established relationships between behavior and health outcomes, however, such as the relationship between cigarette smoking and lung cancer. Cigarette smoking is a predominant risk factor for lung cancer, making much of this form of cancer preventable.

D. PREVALENCE OF RISK FACTORS IN MONTANA

Personal health behavior and lifestyle patterns are important determinants of future risk for chronic diseases. As mentioned previously, chronic diseases are responsible for more than two-thirds of the total deaths within the state each year. Health risk factors such as cigarette smoking, obesity, high dietary fat consumption, sedentary lifestyle, hypertension, hypercholesteremia, alcohol and substance abuse, safety belt non-use and lack of industrial work preparedness, all contribute substantially to the health status of Montanans.

The prevalence of various personal health risk factors are monitored regularly through the use of the Behavioral Risk Factor Surveillance System (BRFSS). This system, developed and implemented in 1984 through a cooperative agreement between MDHES and the Centers for Disease Control and Prevention, collects self-reported responses to a standardized questionnaire.

The 115-question survey is administered via a computer-aided telephone interviewing system, to a randomly selected group of 99 Montana adults aged 18 and older each month. The survey results are based on a complete year of 1,188 interviews. The sample demographics of the BRFSS closely approximate those obtained from the 1990 Montana Census.

Summarized below are the latest (1993) estimates of prevalence for selected behavioral health risks obtained from the BRFSS for the state of Montana. The "U.S. Median" is computed from BRFSS data collected from all states participating in the survey. The health risks presented in Table A-2 contribute to a large number of deaths among adult Montana residents.

Table A-2 1993 Estimates of Prevalence for Selected Behavioral Risks		
Health Risk Behavior	Montana - % At Risk	U.S. Median - % at Risk 1992
Safety belt non-use	22.4%	19.3%
Hypertension	20.9%	20.7%
Overweight	23.6%	24.4%
Sedentary lifestyle	53.1%	56.5
Cigarette smoking	18.8%	22.2%
Chewing tobacco	7.4% (14.4% Males)	4.4% (9.0% Males)
Binge drinking	15.1%	14.3%
No health insurance	15.9%	13.9%

A significant number of health risks exist which are not monitored by the BRFSS. For example, occupational injuries account for a large portion of our unintentional injuries in the state. It should be emphasized, however, that those health risks which are monitored through the BRFSS contribute substantially to the current level of chronic disease experienced in Montana. For example, cigarette smoking alone claimed an estimated 1,242 of the 7,067 (one in five) lives lost in the state during 1992.

E. STATE HEALTH PROMOTION AND DISEASE PREVENTION ACTIVITIES

1. Health Education

The MDHES serves as a focal point for health education, health promotion and disease prevention activities occurring throughout the state. Technical assistance is provided by staff of the Health Services Division for projects sponsored by public and private organizations and agencies. Programs may address a single health problem, such as tobacco control or nutrition, or take a more comprehensive approach to health and well-being. Effective strategies for health promotion and disease prevention recognize the importance of considering the social and physical environment in which health behaviors occur, and allow individuals to make informed choices about behaviors affecting their health.

The list below represents a variety of health promotion efforts in which the MDHES is involved:

- Rocky Mountain Rendezvous Health Promotion Conference
- Montana Association for Physical Education, Recreation and Dance Health Education Conference
- Montana Tobacco Control and Prevention Conference
- Well, Now! Health Promotion Program
- Nicotine Transdermal Patch Project
- Youth and Elders Against Tobacco Use
- Planned Approach To Community Health
- Montana Apex Information Manager Project
- 5-A-Day Nutrition Project
- Cancer Prevention and Control Program
- Tobacco Prevention and Control Program

2. Epidemiology

Assessment requires a knowledge of disease incidence and prevalence in the state. The state epidemiologist has primary responsibility for these functions and serves as an advisor to state and local programs that collect and/or use this information.

a. Communicable Disease

There are over 70 diseases and conditions that are reported to the state by local health departments, physicians, hospitals and laboratories. In addition to monitoring these diseases, there are specific programs at the state and local level for the control of immunizable childhood diseases, sexually transmitted diseases, HIV/AIDS, and tuberculosis.

b. Chronic Disease

MDHES has a program for prevention of chronic diseases. The Chronic Disease Prevention and Health Promotion Program has an overall responsibility for promotion of healthy lifestyles and specific projects for currently identified health priorities. The specific projects are in the areas of dental health, cancer prevention and detection, tobacco control, nutrition and diabetes. This program carries out state level activities and supports some local activity, but local chronic disease prevention programs are limited and are not available in most of the state.

3. Direct Services

The process of performing the core public health functions often demonstrates the need for public health to provide direct services to the public or a portion of the public in most communities. While health reform may produce some realignment of the services, there are a number of health services that will continue to need public health participation.

a. Communicable disease prevention

Public health departments are involved in the distribution of vaccine and also provide immunization services. Currently about 70% of Montana's children are immunized in public health clinics. Sexually transmitted disease screening and treatment, HIV/AIDS testing and

counseling, and disease outbreak control are provided by local health departments, with some financial and technical assistance from the state.

b. Maternal and child health

There are many maternal and child health services currently provided by public health. The need for these services will continue under health reform. Perinatal services for high risk pregnancies currently serve approximately 2,000 women each year. Well-child care is not available in many parts of the state, with the exception of immunizations. Public health clinics are the most effective means of making these services available and coordinating them with private providers. Nutrition services through the WIC (17,000 to 18,000 average caseload) and Child Nutrition programs (approximately 22,000 children served in 1993) are an integral part of public health services to families. The Children's Special Health Services Program provides identification, tracking and case management of children at risk for handicapping conditions. Some funding for medical services should be replaced by health reform, but other functions, including organization of specialty clinics not otherwise available in Montana, will still be needed.

c. Family planning services

Family planning services in Montana include a variety of disease prevention, disease detection and health promotion services, in addition to the traditional family planning services. Whether or not family planning services are provided in basic health care plans, the current public health family planning providers will continue to be needed to provide service. Some possible shifts in funding mechanism and population served may occur. Currently public health family planning clinics serve about 27,000 clients annually.

d. Other selected screening and prevention services

The process of assessment, policy development and assurance at the local and state level will reveal health problems and service needs that can only be met through direct services provided by the public health system. This capacity to respond to emerging problems, to move in and out of service areas as community need dictates, is essential to an effective public health system.

4. Environmental Health Protection

a. Drinking water

Control of waterborne diseases is being addressed by the regulation of drinking water sources and distribution systems through standards established for public, community, and individual systems. Federal standards have been adopted as state standards for construction, maintenance, operation, and quality. MDHES provides review of systems, systems inspection, and monitors drinking water quality. Many local health agencies provide on-site evaluation and inspection services. Several local governments have implemented Water Quality Districts for the protection of underground water aquifers. Education and training for drinking water safety issues is available to water system operators through several state-sponsored and co-sponsored programs. Public safety notices are issued based upon risk for all public drinking water systems.

b. Food, restaurants, etc.

Food safety issues are being addressed by focusing on foodborne illness risk factors associated with food preparation, storage, and handling procedures and personnel hygiene. State and local public health departments are receiving training in this methodology called Hazard Analysis Critical Control Points. Workshops and personnel training are being made available to food establishment owners/operators, employees, other state and local agencies with food safety responsibilities, and the public. Food establishments are assessed on a public health risk basis and receive inspection, education, and consultation accordingly. This food safety program is still in the implementation stage at both the state and local public health agency levels. Statutory and administrative rule changes are desirable to facilitate the incorporation of a risk assessment model into sanitary standards which regulate food offered for human consumption and its safety assurance.

c. Radon

Control of chronic disease caused by radiological isotopes of radon is addressed through a state-sponsored public health education program with participation of some local health agencies. Public awareness messages and information are distributed. Business and residential surveys have been conducted and on-site investigations and testing can be provided or arranged. Information is provided on the effectiveness of commercial radon test kits retailed to the public.

d. Vector control

Control of vectorborne illnesses is addressed by the state health agency through public education, investigation of illnesses, assessment of environmental conditions and populations, and prevention programs. Local mosquito control districts formed are under state review and assessment. A biological mosquito larvae control utilizing mosquitofish is operated seasonally. Coordination of services and activities are provided with other state agencies monitoring diseases which can be transmitted to humans from both wild and domestic animal populations.

e. Liquid and solid waste

Control of communicable disease through solid waste contamination of drinking water and water aquifers is addressed by the adoption of solid waste disposal standards by the state and local health agencies. Minimum standards for solid waste disposal have been adopted for public, community, and individual systems. The state health agency provides review of systems, systems inspection, and monitors operation of public and community systems. All local health agencies provide on-site reviews, inspections, and monitoring of small and individual systems. Education and training for waste water and landfill operators is available through several state and local health agency sponsored programs.

APPENDIX B

FEDERALLY FUNDED HEALTH SYSTEMS

A. INTRODUCTION

In Montana, the federal government supports three direct health care delivery systems: the Military Health Services (MHS); the Veterans Administration system (VA) and the Indian Health Service (IHS). Each of these delivery systems receives either all, or most, of its funding directly from the federal government, and provides services to specific target populations. Throughout the Health Resource Management Plan, the components of these service delivery systems (i.e. hospitals, physicians, etc) have been included in the relevant presentation of resources. However, the unique roles and restrictions of these systems have not been addressed.

A goal of Montana's health care reform effort is to investigate the viability of integrating other health care systems, including federally funded systems, to the greatest extent possible, within the context of health care reform. The integration of federally funded delivery systems will require specific federal action and, in the case of the IHS, negotiations with individual sovereign tribes. Therefore, the ultimate structure and extent of the integration of these delivery systems is still unclear. The communications that have occurred between the Authority's primary contractor, Health Systems Research, Inc., and the relevant federal agencies serves as the basis for the background research for this discussion. Additional communications between tribal representatives, IHS officials, VA officials, military personnel, veterans, Indian people and representatives of the Health Care Authority have resulted in a better understanding by the Authority of issues sensitive to each of these areas. Increased and continuous communications between the Health Care Authority and representatives of Montana's veteran's, active military personnel, and Indian population is necessary, irrespective of the outcome of health care reform proposals. Open communications can only enhance attempts at making appropriate health care available to all Montanans.

Regardless of how the federally funded delivery systems are, or are not, incorporated into Montana's health care reforms, it is necessary to understand them in terms of who they serve, the facilities they operate, and their ability to coordinate with state-level reform. This appendix presents information on the Military Health Service, the Veterans Administration, and the Indian Health Service. For each of these delivery systems the following areas are discussed: information on the population served, including any information on limits or restrictions to services which are placed upon the target population; facilities and services provided by the system and the funding of those services; and, the possibilities and possible limitations of the coordination of the federally funded health systems relative to state level health reform.

B. MILITARY HEALTH SERVICES

1. Montana's Military Population

There are approximately 4,500 active duty military personnel residing in Montana. The active duty military personnel in Montana are concentrated in the Great Falls area and are associated with Malmstrom Air Force Base. The MHS delivers care to three distinct groups of people.

- *Active duty military personnel and their dependents.* These individuals represent roughly 85 percent of those served by the MHS in Montana.
- *Military retirees and their dependents.* These are individuals who are military retirees who have served in the armed forces for at least 20 years. They and their dependents are eligible to receive care through the MHS up to age 65, at which time they become eligible for Medicare. This population represents roughly 15 percent of those receiving care through the MHS in Montana.
- *Other Uniformed Non-Military Personnel.* These are individuals who serve in the Coast Guard or the Commissioned Corps of the Public Health Service and are also eligible to receive services through the MHS. This population represents less than one percent of those served by the MHS in Montana.

While the MHS is only available to the populations described above, it is not the sole source of care for those populations. All of those served by the Military Health Service also have the military health insurance policy CHAMPUS. CHAMPUS operates like other

insurance policies such as Blue Cross/Blue Shield. CHAMPUS enrollees can, and do, use non-military providers, either because the MHS cannot provide needed service or access to other services is convenient.

2. The Military Health Service in Montana

The MHS operates only one medical facility in Montana the "super clinic" attached to Malmstrom Air Force Base in Great Falls. In federal fiscal year (FFY) 1993, the Malmstrom facility received over 100,000 outpatient visits. The outpatient services provided were in a range of specialties including: primary care, pediatrics, obstetrics and gynecology, dental, mental health, optometry, orthopedics, and physical therapy. To provide these services, the Malmstrom facility employs a staff of over 200 military and civilian personnel. The medical provider staff includes 12 physicians, 9 dentists, and 4 nurses. In FFY 1993, the total budget to operate the Malmstrom facility was \$5.6 million.

3. Coordinating Services with State Reform

The Military Health Service system is currently in the process of undergoing a major restructuring known as TriCare. Under TriCare, which is to be phased in by 1997, the care for active duty military personnel, retirees, and their dependents will be organized according to managed care principles. At present, the military's focus has been on restructuring the MHS system and addressing many of the cross-service issues that have arisen. Therefore, how the reformed military health system will ultimately coordinate with state level reform is an open question.

C. THE VA SYSTEM

The primary mission of the VA is to provide high-quality medical and ancillary services to eligible military veterans. Nationwide, the VA accomplishes its mission by operating 171 medical centers and over 300 clinics. In FFY 1992, the total budget for the VA medical system was nearly \$15 billion.

1. Montana's Veteran Population

According to the 1990 Census there were 102,000 veterans in the state of Montana. Only slightly more than 10% of Montana veterans (11,200) made use of the VA system in 1993, which is roughly comparable with the national average. Several factors account for this level of usage by Montana veterans:

- *Accessibility.* The three delivery sites operated by the VA are a considerable distance from most Montana veterans.
- *Alternative sources of care.* Many veterans have insurance or sufficient resources and seek care through non-VA providers.
- *Eligibility.* Priorities established by the VA system effectively exclude many veterans from receiving services through the VA.

2. Veterans Access to the VA Services

The VA system functions under yearly capped budgets which forces it to place restrictions on the amount of services it provides. To establish priorities, the VA uses the broad categories of discretionary and mandatory veterans, along with finer distinctions within the mandatory category.

a. Discretionary Veterans

Veterans with no service connected condition and whose income exceeds \$19,912 are considered "discretionary." If local resources permit, discretionary veterans may receive hospital services at VA facilities, although they will be responsible for a co-payment (equal to the Medicare co-payment of \$696). In 1993, less than 3% of the veterans who made use of the Montana VA system were classified as discretionary (VA Medical Care Fact Sheet - Eligibility).

b. Mandatory Veterans

- *Veterans with a greater than 50 percent service connected disability.* Veterans receive inpatient, outpatient, and pharmacy benefits through VA facilities without restriction (VA Medical Care Fact Sheet - Eligibility).

- *Veterans with a less than 50 percent service connected disability.* Veterans receive unrestricted hospital benefits and may receive outpatient services, "to prevent the need for hospitalization; to prepare for hospitalization; or to complete an episode of treatment after hospitalization" (VA Medical Care Fact Sheet - Eligibility).
- *Low income veterans.* Veterans with no service connected disability, whose income falls below \$19,912 for a single individual (the threshold is adjusted upward to account for family size), receive unrestricted hospital benefits and may receive outpatient services, "to prevent the need for hospitalization; to prepare for hospitalization; or to complete an episode of treatment after hospitalization" (VA Medical Care Fact Sheet - Eligibility).

Roughly 97 percent of the veterans using the Montana VA system in FFY 1993 were classified as mandatory. Approximately half of the mandatory veterans qualified on the basis of income, having no service-related condition. For these lower income veterans, the VA system may be serving as a limited benefit insurance policy. They are covered for hospitalization and acute conditions which may require hospitalization. They are not, however, covered for ongoing primary care for the management of chronic conditions such as hypertension or diabetes.

3. The Department of Veterans Affairs

In Montana, the VA operates two facilities:

- Fort Harrison, in Helena
 - 113-bed hospital, 1993 occupancy rate was 69 percent.
 - Outpatient department received over 37,000 visits.
 - Served approximately 8,500 Montana veterans.
- VA Medical Center in Miles City, which also operates a clinic in Billings.
 - 40-bed hospital, 1993 occupancy was 58 percent. The facility is authorized for 91 beds but only operates 40 at present.
 - 26 long term care beds, 1993 occupancy rate was 96 percent.
 - Outpatient department (Miles City and Billings combined) received 25,586 visits in FFY 1993.
 - Served approximately 3,700 Montana veterans.

The total VA medical budget for the state of Montana (Fort Harrison and Miles City combined), was over \$37.5 million in FFY 1993.

4. VA Efforts to Work with State Health Care Reform

In response to state level health care reform initiatives such as Montana's, the VA has sought national legislation that would allow the VA greater flexibility to work with state level health care reform. Under language proposed, but not enacted, in the Veterans Health Improvement Act of 1994, the VA would have been allowed to identify up to five pilot states. In the pilot states, the VA would have greater latitude to address issues relating to the integration of the VA system into a reformed health care system. The VA is particularly interested in contracting issues, both in terms of how the VA would contract for the services it needs to become a full service health plan, as well as how the VA might contract with health plans that wish to use VA facilities for veterans enrolled in their plans. Under the proposed legislation, the Secretary for Veterans Affairs would base the choice of pilot states on:

- The relative universality of coverage afforded state residents under a state's reform plan;
- The scope of benefits offered under the state's reform plan; and
- The extent of financing committed to support the state's plan.

The universal coverage plans to be developed by the Montana Health Care Authority have the potential to meet the VA's criteria as a pilot state for health reform.

D. THE INDIAN HEALTH SERVICE

The mission of the IHS is to provide a comprehensive health services delivery system for Indian people and Alaskan Natives with the goal of improving the health status of these populations. To achieve this goal, the IHS has developed a health care system that provides both clinical and public health services. The total nationwide IHS budget for FFY 1992 was \$1.5 billion.

1. Montana's Indian Population

According to the Billings Area Indian Health Service Office, there were 55,625 enrolled members of tribes living in Montana as of March 1993. Bureau of Indian Affairs figures indicate that the total number of enrolled tribal members has increased to a current count of 56,600, and 60 percent (34,000) are estimated to live within the borders Montana's seven reservations. Tribal membership is but one estimate of the size of the Indian population in Montana. Enrollment rules vary from tribe to tribe, and the number of people who consider themselves Indian is likely to be somewhat higher. In addition, as will be discussed below, tribal membership is neither a condition nor a guarantee of eligibility to receive services through the IHS.

The Indian people of Montana are generally poorer and in poorer health than the rest of the state's population. According to 1990 census data, nearly half of the Indian people living on Montana's reservations have incomes below the federal poverty level, compared to 12 percent for the state as a whole. In Montana, the infant mortality rate for Indian people is 16.1 per 1,000 births (1986-1990 rate, IHS, Billings Area Profile 1993). This is considerably higher than the overall state rate of 9.2 per 1,000 births (1987-1991 rate, Montana Vital Statistics 1990-1991). Other indicators of poor health among Montana's Indian people are the higher rates of both cirrhosis of the liver and mortality due to auto accidents (IHS Billings Area Profile 1993).

2. Indian People's Access to IHS Services in Montana

For Montana's Indian population, access to IHS facilities requires that Indian people be considered in two categories: those who live within the borders of an IHS service unit; and those who live outside the borders of an IHS service unit.

- *Residents of IHS service units.* Residents of an IHS service unit who are tribal members, descendants of an enrolled tribal member, or are considered a tribal member by the tribal community at large, may receive all available services from the IHS. IHS services include both those which can be provided by IHS hospitals, health centers and health stations, as well as services provided by private, non-IHS providers which the IHS reimburses on a contractual basis. The services which the IHS purchases from non-IHS providers, known as contract health services, represent much of the tertiary and specialty care used by those eligible for IHS services. The

availability of both direct services from IHS facilities and contract services provides service area residents with relatively comprehensive health service coverage.

- ***Non-residents of IHS service units.*** Indian people who are not residents of a service unit can receive services at urban Indian programs or travel to an IHS facility to be served. Indian people who live outside an IHS service area, however, are limited in their access to IHS services in two ways. First, the distance they may need to travel to an IHS facility to receive care may be significant. Second, and more important, individuals who have not resided within the boundaries of an IHS service unit for over 180 days are ineligible to receive contract health services. Due to these limitations, Indian people who live outside a service unit can, at best, access primary care and limited hospitalization through the IHS.

The IHS system does not fulfill all the health care needs of Montana's Indian population. Indian people seek care outside of the IHS system for a number of reasons, such as barriers to access as a result of distance and/or IHS eligibility criteria or the treatment limitations of the IHS system. Nationally, less than one half of Indian people eligible to receive IHS services use IHS services exclusively. Most Indian people use a combination of IHS and non-IHS services, depending upon the IHS's capacity to provide needed care, the accessibility of that care in their particular area, and their individual resources. Indian people with higher incomes and other sources of insurance coverage are even less likely to make exclusive use of IHS facilities and services (Cunningham, 1993).

3. The Indian Health Service

The IHS is comprised of 12 regional administrative offices, which are divided into smaller service units. The service units are directly responsible for the management of service delivery. The boundaries of a service unit encompasses the area containing the reservation it serves as well as the counties that are contiguous to the reservation. Montana is served by the Billings Regional Area Office, which consists of seven service units corresponding to the seven reservations in the state.

4. IHS Expenditures in Montana

In FFY 1992, the total IHS budget for Montana was \$87.2 million. The IHS reported an active user population of over 49,000. The IHS considers an active user to be anyone who has used any IHS direct service within the last three years. The major components of Montana's IHS budget were: IHS clinical facilities; contract health services; public health

services; facilities and administration; and urban Indian clinics. Each budget category is discussed briefly below:

- *Clinical facilities.* In FFY 1992, the IHS in Montana operated three hospitals, five health centers and four health stations. IHS hospitals in Montana are small rural facilities (all have less than 35 beds) that provide both outpatient and inpatient services. Health centers are freestanding outpatient facilities that are open at least 40 hours per week and are staffed by a full-time physician. Health stations are outpatient facilities that operate less than 40 hours per week and may be staffed only by mid-level providers. In FFY 1992, IHS facilities in Montana received over 283,000 outpatient visits and over 3,100 inpatient admissions. The IHS budget for the operation of clinical facilities was \$50.5 million in FFY 1992.
- *Contract health services.* The IHS facilities are not able to provide all care that patients may need. As noted earlier, specialty, tertiary and even primary care services that exceed the capacity of the IHS system are purchased from private providers on a contract basis. Contract services are purchased only for individuals with no other payment source such as Medicare or Medicaid. Contract services, like all IHS services, are limited to a yearly budgeted amount. To assure that the limited funds for contract services are allocated to persons with the greatest needs, the IHS uses a rationing system based upon medical priorities. In FFY 1992, \$24.5 million went to the provision of contract services.
- *Public health.* The provision of public health services is an important aspect of the IHS's mission to provide a health care system for all Indian people. Public health functions include public health nursing, health education, and environmental health, such as sanitation and water systems. In FFY 1992, the IHS budget for public health activities in Montana was \$5.7 million.
- *Facilities and administration.* General administrative functions as well as the maintenance, expansion and construction of all IHS facilities in Montana are managed centrally by the IHS regional office in Billings. In FFY 1992, the total IHS administration and facility budget for Montana was \$3.3 million.
- *Urban Indian clinics.* There are five urban Indian clinics in Montana. Three clinics provide direct clinical services and two clinics provide only community outreach, referral to other services, and substance abuse treatment. Urban Indian clinics are Indian-run, non-profit facilities. They are not operated by the IHS, but they do receive IHS funds. Urban clinics do not have tribal affiliations, but the governing boards usually include tribal representatives. In FFY 1992, Montana's urban Indian programs received 9,930 medical visits and 39,744 total visits to Indian people. In FFY 1992, the IHS funding commitment to Montana's urban Indian clinics was \$.76 million.

Since FFY 1992, a significant change has occurred in the organization of IHS services in Montana. In 1993, the Confederation of the Salish and Kootenai Tribes, which reside within the IHS's Flathead Service Unit, decided to assume the responsibility for the operation of their health services. Under the provisions of the Indian Self-Determination and Education Assistance Act of 1975, a tribe may assume control over the operation of local IHS facilities. Although the tribe continues to receive funding from the IHS, the local facilities are operated and managed by the governing tribes.

4. IHS Funding in Montana

The majority of the \$87.2 million IHS budget for Montana in FFY 1992 was funded by a direct federal appropriation. In addition to the \$78.7 million in direct federal support, the IHS in Montana also received Medicaid reimbursements of \$5.8 million, Medicare reimbursements of \$1.8 million and other third-party reimbursements of \$.9 million. While third-party reimbursements represent less than 10 percent of all IHS funding in Montana, they make up nearly 17 percent of the budget for direct clinical services and, therefore, are vital to the operation of local IHS facilities.

Medicaid represents the most significant source of third-party reimbursements to IHS facilities. Services provided by IHS facilities to Medicaid-eligible Indian people receive a 100 percent federal Medicaid match compared to the 71 percent federal match that the state receives for the services delivered to other Medicaid eligible individuals. In an effort to generate revenue to support its facilities and services, the IHS facilities in Montana have increased their efforts to obtain Medicaid reimbursement. Medicaid payments to the IHS increased from \$3.4 million in FFY 91 to \$5.8 million in FFY 92, and to \$7.3 million in FFY 93. The 100 percent match only applies to services provided by the IHS. Services received by Medicaid-eligible Indian people from non-IHS facilities are reimbursed at the regular federal matching rate.

5. IHS Coordination with State Health Reform Proposals

Speaking on behalf of the Fort Peck Tribes before the Regional Forum on Indian Health Reform in Billings, Montana on April 7-8, 1994, Caleb Shields, Tribal Chairman stated:

"Health Care reform could provide a potential for life-saving advances for Indian health, but these advances must come within the context of government-to-government relations between tribes and the United States and a reaffirmation of the trust responsibility that the federal government owes to the tribes. These are the fundamental principles on which any proposed plan must rest to properly address the health care needs of Indians."

Consideration of how the IHS and its facilities might coordinate with state health care reform proposals is not a straightforward exercise. The IHS is not a monolith whose policies and programs are operated consistently throughout the country. The IHS is the programmatic mechanism for fulfilling treaty obligations between the U.S. and the sovereign tribal nations. The unique government-to-government relationship between the tribal nations and the U.S. government means that care must be taken when making broad generalizations about the IHS system under varying scenarios of health care reform.

In Montana, as in other states, the ultimate relationship of the IHS system to any state-level reform will be the result of the interplay of several factors. Tribal responses to any proposed health plan are likely to vary significantly from tribe to tribe within the state, owing to the tribe's local circumstances, tribal culture, and the tribe's historic relationship with the state. Overlaying all discussions of state health care reform as it relates to Indian people will be the tribe's interaction with the federal government. Decisions relating to the participation of the IHS in a reformed health care system in Montana are but one aspect of the complex relationship between the state and tribal nations within its borders.

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